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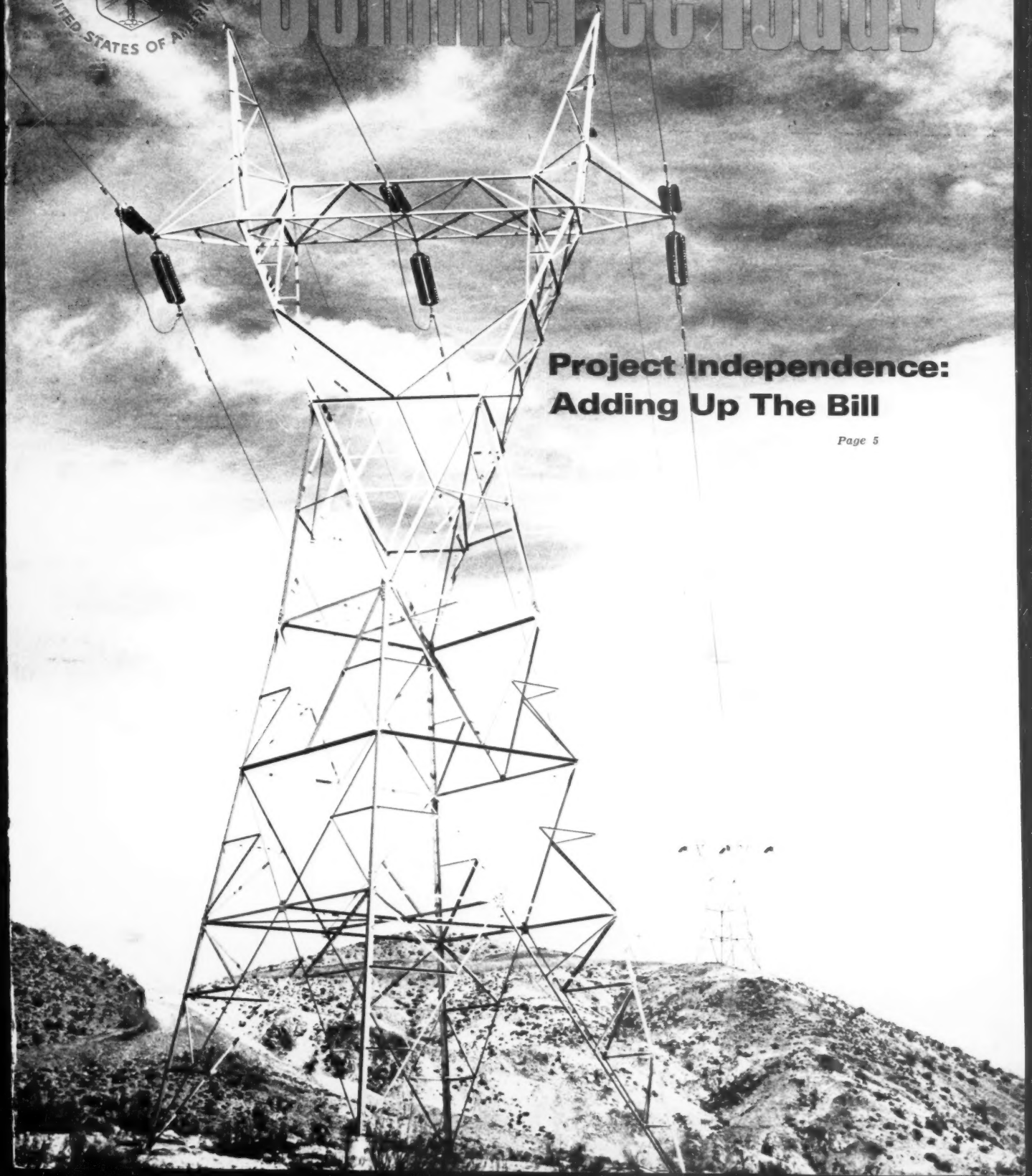

Project Independence: Adding Up The Bill

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FROM THE
SECRETARY

Anticipating The Economic Summit

This column was written by Under Secretary of Commerce John K. Tabor.

Speaking of the nation's economic problems, President Ford said at his August 28 news conference ". . . we are all in this boat together."

To make progress with our problems, all in that boat must pull together.

That is what is vividly illustrated by the President's Conference on Inflation to be held September 27 and 28 in Washington, D.C., and to be attended by representatives of business and industry, finance, labor, farmers, consumers and government, seasoned by the attendance of professional economists.

All sectors of our vast and diverse economy will be heard from and consulted, both in the September 27 and 28 conferences, and the preliminary conferences by sector. As the President has noted, this is to be a "bipartisan national effort to deal with our number one economic problem."

Fourteen preliminary sector conferences will be held in various parts of the country leading up to the President's Conference on September 27 and 28. Two such conferences on business and manufacturing will be sponsored by the Department of Commerce and chaired by Secretary of Commerce Frederick B. Dent. One will be in Pittsburgh, the other in Detroit.

These conferences will solicit the advice of the business and manufacturing sectors, as others will seek the views of economists, labor, the housing industry, health and welfare experts, agriculture and agri-business, those charged with protecting our natural resources, banking and finance, the transportation industry and state and local government officials.

Will the conferences work?

That is in the hands of those attending. If they attend with a sense of responsibility, and with a sense of the opportunity offered, the conferences can indeed succeed. They can succeed in identifying options as to which there is a consensus and other critical choices where there is not a consensus, but where action may nevertheless be needed. And they can succeed in the sense of providing a unique opportunity to communicate with the American people, the nature of our economy and how it really works.

I mentioned approaching the conferences with a sense of responsibility. Only the first conference has been held at this writing. A broad spectrum of economists participated—from Galbraith to Friedman. But there is general agreement that a much stronger consensus emerged than had been anticipated, that as George Shultz stated afterwards, "they spoke in public as they do in private" and that the first pre-conference meeting was responsible and successful. The fear that these conferences, open to the public through television, would be distorted by demagogues posturing and making speeches instead of proposing solutions has not been realized, to date.

The other key to the success of the conference is recognition of the unique opportunity it presents to inform the American public about the role of business and industry, labor, finance, the consumer and government in this remarkable economic system we have.

The conferences offer the opportunity for Americans to understand better what business and industry can and cannot do, what profits are and how they are necessary to build the plants to generate the jobs, goods and services that sustain the entire country.

No segment of the economy needs an opportunity to tell its story clearly, believably or forcefully more than business and industry. If it tells its story responsibly and clearly and each of the other segments tell their stories equally well—all aiming at a responsible solution to our present economic problems—the conferences will have succeeded.

The people will understand our system better, and the solutions which ultimately emerge will be recognized for their correctness.

John K. Tabor

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COVER: *The electric power industry, the most capital-intensive of all industries, will require more than 60 percent of the total energy investment until 1985, according to energy planners, as the Project Independence story beginning on page 5 points out.*

Food, Fuel Prices Show Some Moderation; But Inflation Becomes More Generalized

Economic Highlights is prepared by the Office of the Assistant Secretary for Economic Affairs.

Inflation, like almost everything else in economics, changes constantly in both character and magnitude. One very important change that has occurred over the past several months in the price indexes is a more general upward movement among a great number of products and services and a moderation of the sharp, spectacular rises that occurred earlier in the highly sensitive food and fuel categories.

This spreading effect, coupled with the possibility of a resurgence in food prices, is ominous. However, the generalization of price increase should not be taken as a sure sign that a more rapid rate of inflation will ensue. Events of the past several years have made economists reticent about precise forecasts, but most of them believe the current high rate of inflation will continue for a few months and that significant abatement will occur during 1975.

Pessimistic outlooks are typically founded on one or more of the following: (1) food prices are likely to rise again now that the recent Midwest drought has cut deeply into the corn crop and has affected other crops as well; (2) the diffusion of price increases is more worrisome than food and fuel prices because rises in those two sectors could be attributed to specific and temporary causes; (3) the effects of past food and fuel price rises are lingering since businesses have not yet passed on all the costs, especially in regard to fuel; (4) most of the effect has been most pronounced at the wholesale level and these price rises are likely to result in higher retail prices; and (5) recent labor contracts call for sharp increases in wages and this will result in the familiar spiral effect.

Optimists base their positions on: (1) both food and gasoline (but not heating fuel and coal) declined slightly in July at retail; (2) although food prices appear to be subject to another surge, the intensity will be dampened by many factors, including more favorable worldwide crop conditions; (3) much of the rise in the wholesale indexes can be attributed to shortages of basic commodities which resulted from controls and which should now be abating as the free market resumes normal operations; (4) the declines in food prices at wholesale in four of the past five months has had a salutary psychological effect because it demonstrates that prices can go down as well as up; and (5) while the economy now appears to be growing again following the slowdown in the first half of the year, there is little indication of a sharp rebound that would rekindle inflationary pressures; and (6) the restraint imposed by monetary and fiscal policies will gradually bring about a reduction in the rate of price increases.

There is no question about the change in the character of inflation. As indicated by the first chart on the opposite page, food prices began climbing rapidly in late 1972, long before the shift to a faster rate in the other two broad divisions of the Consumer Price Index, non-food commodities and services. Over the past 12 months, food, gasoline and the category that includes fuel oil and coal accounted for 45 percent of the increase in the CPI. In the past three months, however, only 13 percent of the rise in the CPI could be attributed to these two categories.

The story is much the same in the Wholesale Price Index. The two much-publicized categories accounted for 26 percent of the rise in the WPI over the past 12 months compared with about 4 percent over the past three months.

Food prices began climbing rapidly in late 1972, as indicated by the first chart on the opposite page, and the two other broad sectors in the Consumer Price Index, non-food commodities and services, did not begin rising as rapidly until much later. The total index now stands 11.8 percent above a year ago, though food is up slightly more—13.9 percent. Other commodities have advanced 11.8 percent in 12 months, while the services category, which includes such items as rent, transportation, and health care, has increased 10.2 percent.

Rises in the Wholesale Price Index also have accelerated in recent quarters. As indicated in the third chart, many basic wholesale commodities have advanced sharply in price from December through July. Fuels, of course, increased the fastest; but such basic items as chemicals (some of which are petroleum-based), and metals are not too far behind. The total index is now 20.4 percent above a year ago.

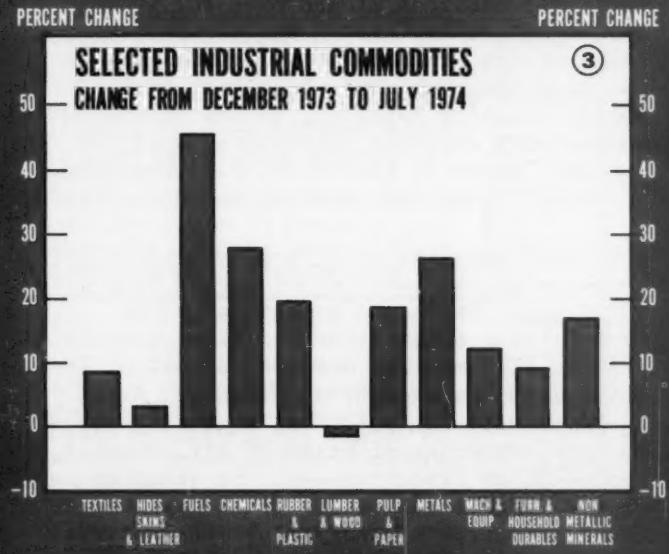
Inflation is a less visible burden to the individual whose income has kept pace with the prices of the items he buys. For the worker, income may increase by virtue of longer hours or a higher rate of pay, or both. Although average hours worked per week fluctuates widely, the average has dropped this year. Average hourly earnings for nonsupervisory workers in the nonfarm economy was $4.25 in August, up 8.4 percent over August 1973. The net effect is an increase of 7.5 percent in average weekly earnings over the past 12 months.

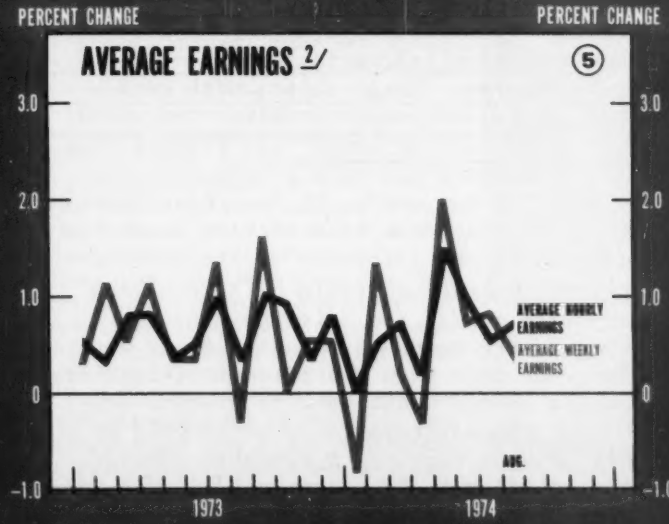
After adjustment for inflation, however, the typical nonsupervisory worker's wages were down 4.6 percent from a year earlier; and with further adjustment for taxes, the loss in Real Spendable Earnings was 5.3 percent.

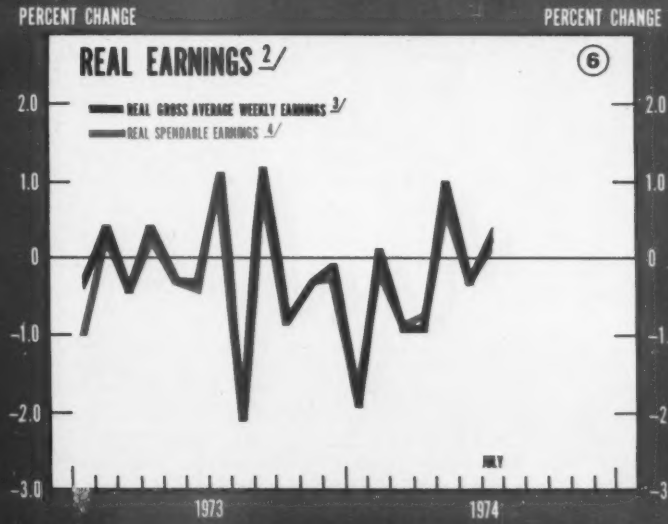
These calculations on non-supervisory workers do not include many important groups such as pensioners, who may or may not be protected by cost-of-living clauses, and self-employed persons. Nor do they include income outside the wage and salary category, such as stock dividends, interest, and farm income.

Aggregate measures such as price indexes and average earnings do not indicate the uneveness of the inflationary impact of the past year or two. The worker with a large family will be especially hard hit by food price increases, while others may be strongly affected by rises in gasoline and heating fuel. Higher gasoline prices and the recent price hikes for 1975 autos may have little meaning for the New Yorker who rides the subway.

The great mass of workers have lost purchasing power over the past year. This poses a disturbing dilemma since their efforts to catch up will undoubtedly intensify, and higher wages will push up production costs. This, of course, leads in turn to increased inflationary pressures.







All data seasonally adjusted.

1/ Price index measured as of last month in each quarter.

2/ Data for production or nonsupervisory workers on private nonagricultural payrolls.

3/ Real gross average weekly earnings are earnings in current dollars adjusted for changes in the consumer price index.

4/ Real spendable earnings are real weekly pay after deduction of Social Security and Federal income taxes.

Newsmemo

Advertising expenditures, one measure of general economic activity, are holding up. Despite some reported individual company cutbacks, and indications that total ad volume will not show an increase this year, expenditures are expected to be about 5-6 percent above 1973 levels. TV, now accounting for about 20 percent of all the advertising dollars, is 10 percent ahead of last year. Many advertisers are maintaining TV budgets at the expense of other media. Magazine volume is down, and publishers are keeping their rate increases low to avoid driving advertisers into TV and other media. Newspaper linage is slipping in many categories, being hurt by fewer new product introductions and slower activity in special promotions.

A comprehensive guide on doing business with the Soviet Union in technology and patent rights is now available. The study, by the Licensing Executives Society, follows upon a visit by a U.S. Government-industry team of patent and licensing experts to the Soviet Union, led by Commerce's Assistant Secretary Dr. Betsy Ancker-Johnson. Copies of "U.S./USSR Technology and Patents, Sale and License Prospects" can be ordered for $40 from LES Publications, c/o Studeny Co., 544 William Penn Hotel, Pittsburgh, Pa., 15219.

Put the auto license plate to work as a traffic control, safety and anti-theft monitor. That's the aim of RCA Microwave Technology scientists. Their proposed electronic plate would: answer with a vehicle's identification when electronically interrogated, receive and transmit radio messages, be part of a collision-averting radar system, serve in automatic toll billing. All this by a plate 12 by 6 by one-half inch thick.

The nation's shoe industry, searching for reliable guidance on the likes and dislikes of consumers (see NEWSMEMO, June 24), has won a Commerce grant for this purpose. The American Footwear Industries Assn. will add $270,000 to the $210,000 in federal funds to: study advance fashion information and develop methods of moving such information to producers; conduct consumer research on changing footwear preferences; help introduce engineering standards in the industry; evaluate production processes in the interest of better productivity.

A background in international business activity is a definite plus for candidates for economic/commercial posts at U.S. Embassies and Consulates. State Department is seeking qualified citizens 21 and over for such positions abroad (and in Washington) at exams at 250 sites on Dec. 7. There are no specific language nor educational requirements. Starting salaries: in the $10-14,000 range, plus overseas allowances. Apply by writing: Board of Examiners, U.S. Department of State, Room 7207, Washington, D.C., 20520.

When environmental considerations clash with trade policies, businessmen should help with solutions. That's the premise of a new course being offered for the first time this fall at the American Graduate School of International Management at Glendale, Ariz. The international political aspects involved in such matters--pollution of air or water, depletion of resources--will be examined to provide a perspective for those training to become tomorrow's managers of international or multinational companies.

Will the so-called variable rate mortgage--whose interest charge shifts with conditions in capital markets--widen the availability of housing money? The Federal Home Loan Bank Board has sent a variable plan to Congress for study. It has these provisions: the variable rate is tied to an index outside the influence of the lender, such as the average yield of 3-to-5-year corporate bonds; the rate would not be changed more than 0.5 percent at any one time, nor more than 2.5 percent altogether; advance notice would have to precede any change; the mortgage could be prepaid at will without penalty. A somewhat similar plan, studied in Congress in 1972, met unfavorable response.

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Financing Project Independence: Tough Questions Demand Answers

Project Independence poses many questions for the U.S. economy. One of the most significant deals with obtaining the money to finance it. The long-term goal of Project Independence is to reduce U.S. reliance on foreign energy sources by decreasing energy demand and increasing domestic resource development. This program will require the investment of from $450 to $700 billion in the energy industries between 1970 and 1985, according to the Federal Energy Administration. Raising this capital will be a major challenge to the economy.

Between 1960 and 1970, energy demand grew at the rate of 4.3 percent per year. During that period the energy industry's capital expenditures averaged about $20 billion per year and amounted to about 20 percent of all business capital expenditures.

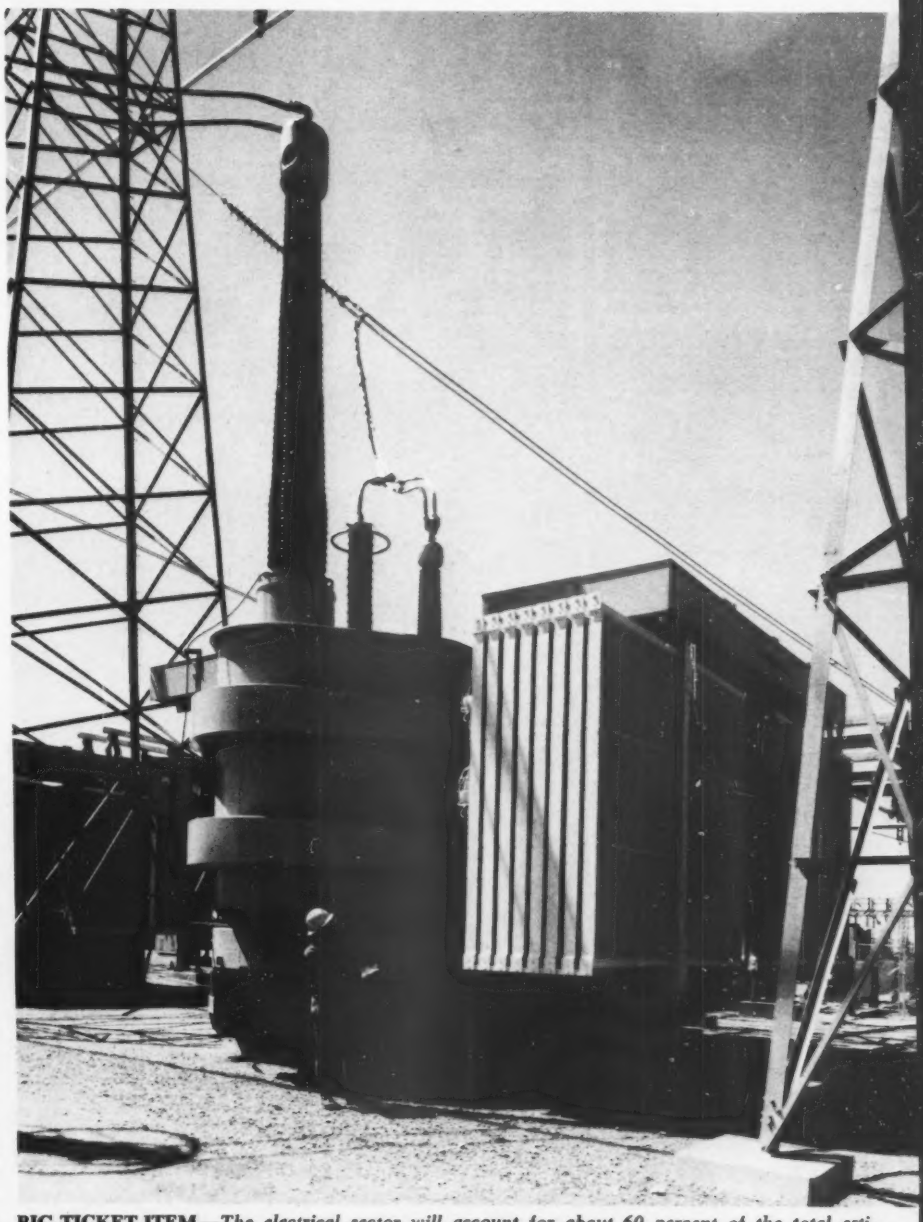
Also during the decade of the 1960s, energy imports increased from supplying 15 percent of total U.S. consumption to almost 30 percent. The true cost of this reliance on foreign energy supplies was dramatically demonstrated during the Arab oil embargo.

To secure the country from a repetition of that crisis, Project Independence will encourage investment in the vast domestic energy potential of the United States. Public hearings currently under way on the blueprint for Project Independence are discussing the available policy options.

There are several different estimates of the energy investment required between 1970 and 1985. The National Petroleum Council puts the figures at from $450 to $500 billion (in 1970 dollars). Kenneth Hill, Executive Vice-President of Blythe, Eastman Dillon, in a 1972 speech, included sums for working capital and debt repayment and estimates between $550 and $600 billion for the same period. Robert Holland of the Federal Reserve Board estimates that $700 billion is needed.

Between 1960 and 1970, the energy industry required about 20 percent of total invested funds. The capital requirements of the industry by 1985 could be as high as 35 percent of total U.S. investment.

Twenty-five percent of the energy used in the United States is electricity. The elec-



BIG TICKET ITEM—*The electrical sector will account for about 60 percent of the total estimated $450 to $700 billion investment in new energy production facilities between 1970-85.*

HEAVYWEIGHTS—*When the costs of needed tankers, terminals, pipelines, refineries and transportation are totaled up, the oil industry's capital requirements for Project Independence should run between $186 and $257 billion.*

FIRST, BUT STILL LAGGING—*The world's first atomic power station to generate commercial electricity has been operating at Shippingport, Pa., since 1957, but nuclear fuel plants will account for only 6 to 8 percent of projected 1970-85 plant investment.*

tric utility industry is very capital-intensive and will require over 60 percent of the total energy investment. Investment required by power companies to generate one dollar of annual revenue is currently $3.66, whereas the comparable investment in the average manufacturing company is 58 cents. Because of the large sums of money needed, and the difficulties that the industry is facing even now, electric utilities are an area of major concern to energy planners.

Electric power generation increased at the rate of about 7.2 percent per year in the decade of the 1960s. The rate of increase for all forms of energy during the same period was 4.3 percent. With a strong emphasis on conservation, the rate of growth should slow somewhat, but the overall share of the energy market which electricity holds should increase into the 1980s.

Roughly 25 percent of all new capital funds currently raised in U.S. financial markets are needed by the electric power industry. This figure is expected to rise at least through 1985, for several reasons. First, inflation—the cost per kilowatt of generating capacity has doubled in the past ten years. Second, peak demand has increased each year. Third, nuclear plants are highly capital-intensive and require long lead times in construction. Finally, many costs now required do not add to revenues, such as plant requirements for environmental protection.

Along with the vast requirements for capital financing, the financial position of utilities has deteriorated in recent years. Rising fuel and construction costs combined with inadequate rate relief have placed the utilities in a cash flow squeeze. The industry's cash and government securities as a percentage of current liabilities has declined from 31.9 percent in 1964 to 9.6 percent in 1973. Some utilities are even now having difficulty selling equity, and, if the industry can't raise the capital it needs to meet its construction budgets, it will be unable to build the generating capacity needed to meet future demand.

Oil and gas

Oil and gas provided about 75 percent of the total U.S. energy supply in 1970. Capital expenditures in that year for exploration, development and production of domestic natural gas and oil amounted to $4.8 billion. The National Petroleum Council estimates that from 1971 to 1985, the average investment required annually will be between $5.8 and $11.5 billion. When the costs for pipelines and transportation, refining, and tankers and terminals are included, total capital requirements are estimated to be between $186 and $256.9 billion.

Coal is the country's most abundant resource. Reserves comprise 94 percent of the "identified" primary energy reserves. Despite this abundance, it supplies only 17 percent of total energy consumption.

Although coal is expected to play an increasingly important part in the effort toward producing a greater degree of independence, investment in its recovery is expected to account for only 4 percent of total energy-related investment. The National Petroleum Council estimates that coal production and transportation will require between $15.4 and $20.3 billion. The development of a synthetic-fuel-from-coal industry would require an additional investment of $1.7 to $12 billion, according to NPC.

Nuclear fuels

Investment in nuclear fuel production will account for only 6-8 percent of U.S. energy plant investment. NPC estimates that investment in the mining, production, processing and enriching of nuclear fuels will amount to between $6.7 and $13.1 billion in the period 1971-85.

The problems with attracting investors to the energy industries are the same as with any other investment—providing a reasonable return on capital. Many aspects of the industry are faced with controls. Examples of activity in this area include state public service commission rate regulation, the two-tier pricing system for crude oil, and the control of natural gas prices at the wellhead. These controls on the market sometimes hide the true costs of energy production.

On the other hand, there are government tax incentives available to many of the industries, such as the investment tax credit and the oil depletion allowance.

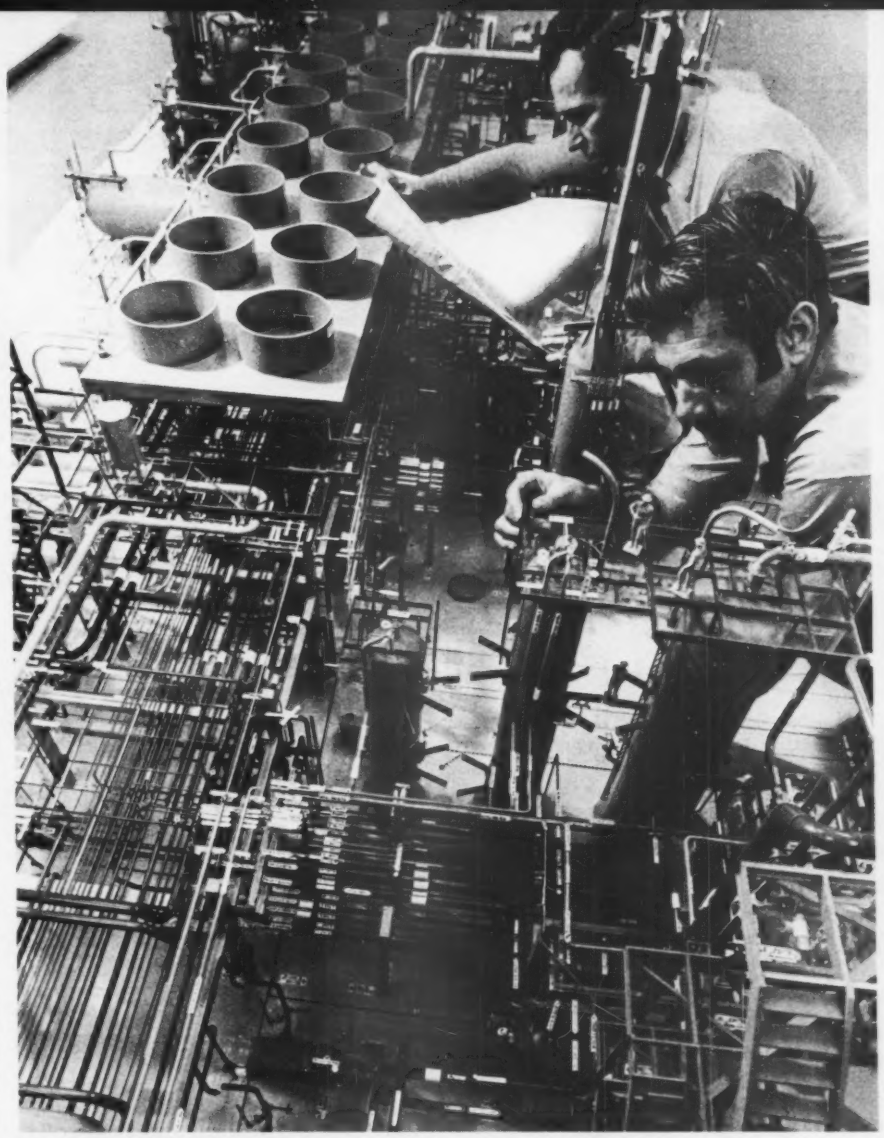
Consistent policy must be set regarding investment in energy development. This will include: whether Project Independence should rely on government or private industry for energy production, whether prices should be allowed to cover the costs of producing the necessary supplies or whether social considerations require a direct or indirect subsidy, whether and to what extent should the government protect the domestic industry from foreign interference through tariffs or import quotas. Finally, a decision must also be made to resolve the serious environmental conflicts.

Essentially, the Project Independence planners have three policy choices:

- A policy of friendly but passive support of energy development;
- A policy of active stimulation of private investment;
- A policy of active governmental investment, ownership and management.

A major policy area of immediate concern to the investor is modernization and unification of state regulatory practices over the electric utility industry. The utilities had problems before the Arab Embargo, but the embargo, conservation and the increased costs of fuel worsened the problem.

Utilities have experienced a squeeze on earnings and cash flow in a highly inflationary environment. Their problem has been magnified by the failure of many state regulatory agencies to provide adequate and timely relief. Rate changes should reflect the altered capital and fuel costs as well as the need for an adequate rate of return on investment.



SCALING ECONOMIES—*Badger Co. model makers use flow diagrams to design maximum operating efficiency into a plant before the actual constuction outlays began.*

Another decision will concern the release of domestic oil and gas from price controls. The era of cheap energy for the United States has come to an end, and Americans may be forced to pay more for their use of these resources. Higher prices will also induce conservation of energy, a policy consistent with the long-run goals of Project Independence.

Exploitation of the more expensive domestic resources is profitable as long as the cost of imported energy is high, as it currently is. It may be necessary in the future, however, to insulate domestic energy production from the effects of drastic changes in the price of foreign sources. This may require some government-financed assistance, to accelerate research and development on new energy resources.

The current disputes concerning enforcement of environmental regulations should be resolved. This would reduce uncertainty in developing domestic energy. In addition, the social question of whether the costs of anti-pollution measures will be passed on to the consumer or subsidized in some way must be solved.

Finally, there may be a need for specific federal initiatives in research and development, as well as in initial plant investment guarantees to establish the commercial feasibility of new energy resources.

All of the questions on the capital requirements of self-sufficiency have far-reaching political, social, and economic consequences. In order to raise the vast sums of money required for the endeavor, difficult decisions must be made.

That's what Project Independence is all about!

Industry's Clean Air Investment Seen To Reach Near $50 Billion

The estimated cost of clean air has risen astronomically in recent years.

The Environmental Protection Agency (EPA) in the 1974 Cost of Clean Air report to Congress, submitted recently, estimates that the capital investment required to conform to the standards of the 1970 Clean Air Act amendments would range between $42.4 billion and $52.2 billion for the nine-year period from fiscal year 1971 through 1979, with the expected total narrowing down to $47.3 billion.

The expected figure compares with $23.4 billion for the nine-year period from fiscal year 1970 through 1978 made in the 1973 Clean Air report. The 1974 total is more than double that made in 1973.

Officials of the EPA Office of Planning and Evaluation explain that the much higher figure in the 1974 report is more realistic primarily because it is more thorough, involving in the computation a number of new processes. "I would say," one official comments, "that we were much smarter when we made the 1974 estimate."

While officials do not rule out the possibility that the expected total in the 1975 Cost of Clean Air report will be higher still, they say they don't think it will be double the 1974 figure, or anything like it.

Actually, the 1974 report estimates that the cost of clean air for the five-year period from fiscal year 1975 through 1979 will range between $30.5 billion and $36 billion, with the expected total balancing out at $32.9 billion.

This would indicate, officials explain, that a reduction of $14.4 billion in the expected 1971-79 fiscal year cost has already been made by the efforts of industry and communities to comply with the clean air standards.

Of the increases in the expected cost from 1973 to 1974, only $2.9 billion was accounted for by inflation. This was due to the fact that the 1973 estimate was based on the value of the dollar in 1970, while the 1974 estimate was based on the value of the dollar in 1973, which was 15 percent less.

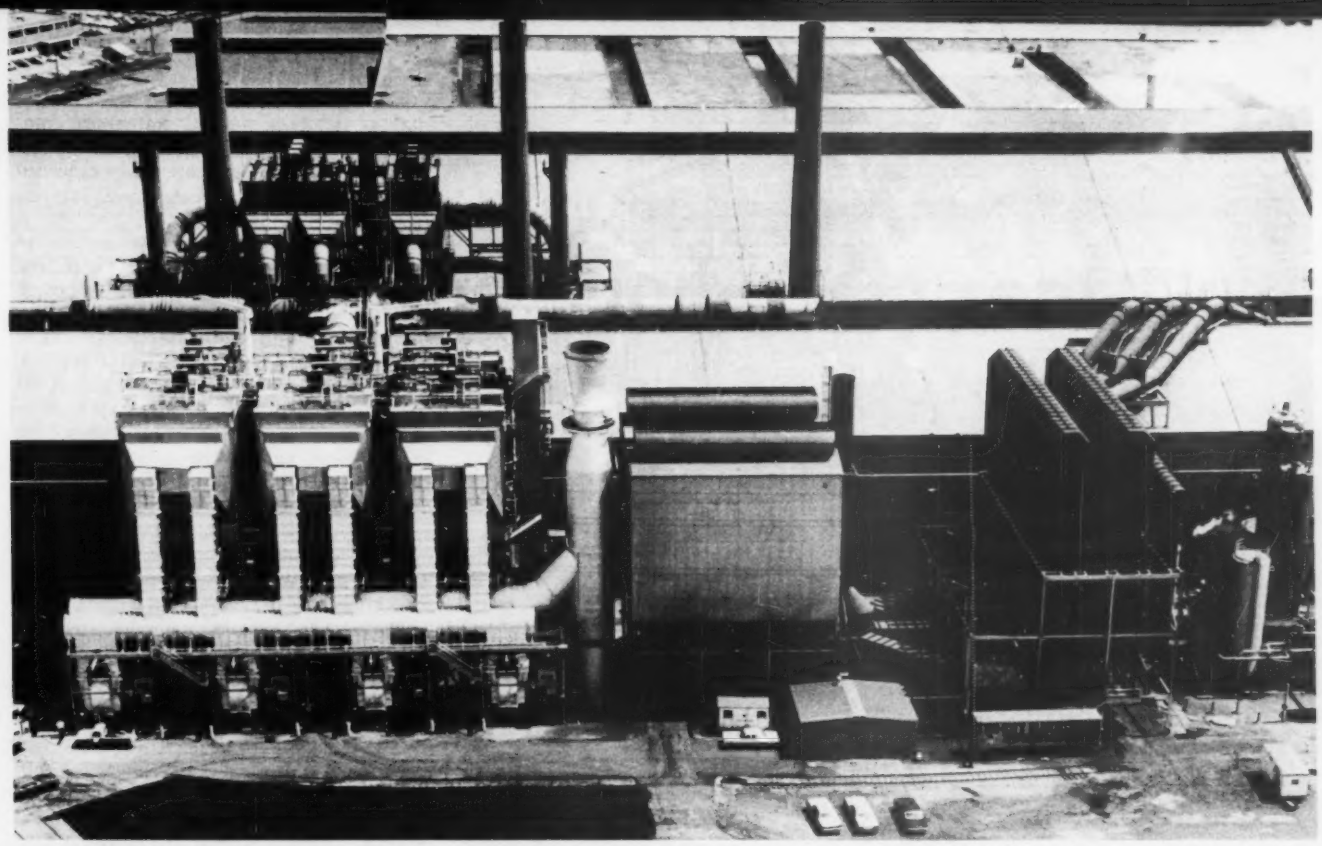
Aside from the inflation factor, the fact that the estimated clean air cost for the nine-year 1971-79 period was more than double that for the nine-year 1970-78 period was due to the following: increases for mobile and fossil fuel sources, $9.2 billion each; increases for industrial abatement, nearly $6 billion.

1979 is a big one

Of the $9.2 billion increase for mobile sources, $4.2 billion was due to the added 1979 year; $3.9 billion to a revision of the control cost estimate per vehicle; and $1 billion to the inclusion of urban transportation control programs omitted from the 1973 report.

Higher costs for fossil fuels were attributed to increases for control of power plants and for commercial and industrial boilers. Factors in these calculations included the following: $1.8 billion for particulate control which previously had been considered a standard industry practice prior to the Clean Air Act; $1.7 billion for abatement on the 1979 year's added growth in power plant capacity; and $1.1 billion for an increase in unit costs of sulfur oxide control.

REMOVING SULFUR—*This equipment removes sulfur from petroleum products. The petroleum industry spent more than $2 billion on air and water improvement during a recent five-year period, according to an American Petroleum Institute survey.*



WIDE ASSORTMENT—*Air cleaning facilities can be large and complex. Servicing several furnaces in this American Iron and Steel Institute photograph are, from left, electrostatic precipitators, a bag-house, and a "hairpin" cooler. Industry is a top pollution control spender.*

Increases in industrial source control costs were distributed over many of the industries studied. The major increases were: $1.4 billion in the feed milling industry; $1.1 billion in solid waste disposal; $1.5 billion in iron and steel; $450 million in grain milling; and $350 million in petroleum.

EPA said abatement costs for feed milling were understated in previous years because only one emission source and only 1,112 mills were considered. The 1974 report included up to seven sources for large mills and four for the smallest mills, with control costs of about $200,000 per mill. Costs for a similar mill in the previous report was only $15,000 per mill. The 1974 report used recent survey data indicating there were 7,600 mills in the industry.

The increase in solid waste disposal cost is due to the inclusion of investment cost for land and equipment. The previous report assumed no incremental investment cost over the open-burning alternative.

As in the case of feed mills, a number of emission sources from grain mills were not considered in the 1973 report. Inclusion of these sources along with associated control devices resulted in higher abatement costs per mill. New cost data for the petroleum industry was developed by the Industrial Gas Cleaning Institute, and resulted from higher unit control costs.

Another EPA report on "The Economic Damages of Air Pollution" estimates that in 1970 the cost of air pollution damage in the U.S. fell within a range of $6.1 billion to $18.5 billion, with the best estimate at $12.3 billion.

These estimates are based on prevailing air quality levels in 1970; a survey of the literature on environmental economics; and an extrapolation of studies that attempt to estimate air pollution damages and that have passed a critical review.

Pollutants considered responsible for the damage are sulfur oxides, particulates, and oxidants. The best estimates for damages from these sources were: sulfur oxides, $5.4 billion; particulates, $5.8 billion; and oxidants, $1.1 billion.

Major damage involved

This report explains that the $12.3 billion best estimate of pollution damage "is not to be taken as absolute, but is to be considered as indicative of the seriousness of the air pollution problem." Major damages calculated involve human health, man-made materials, and vegetation.

"While it is known that air pollution causes losses of domestic animals and wildlife," the report says, "such losses are not quantified in this report because of data limitations. Air pollution is also believed to cause pervasive effects in the biosphere and on geophysical and social processes. These effects are not without some economic consequences, but until the relationships can be more clearly identified, large-system economic analysis is somewhat premature."

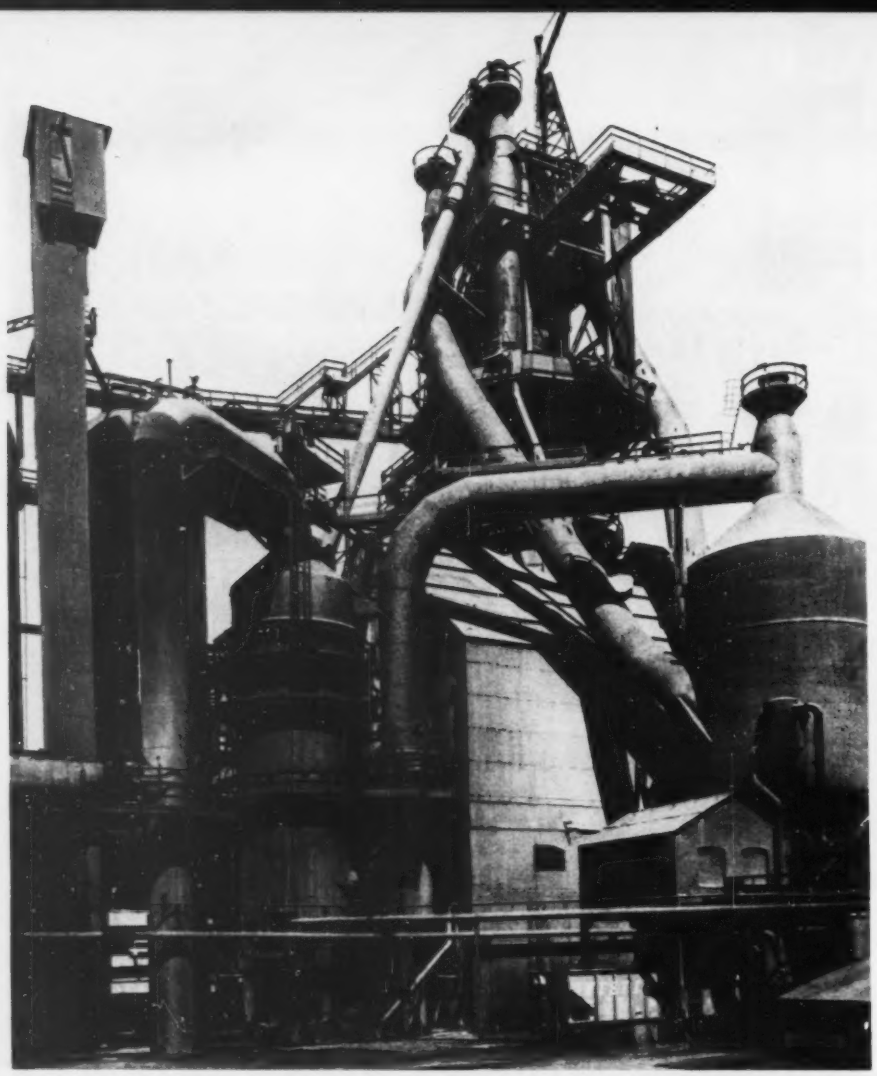
The 1974 Cost of Clean Air report points out that it is not possible to measure all the benefits of improved air quality or to reduce them to dollars and cents.

"Air pollution has clearly observable effects," the report explains, "in terms of increased morbidity and mortality, deterioration of aesthetic qualities, damage to artifacts, soiling, and damage to vegetation . . .

"The many kinds of costs pollution imposes upon society are grouped as psychic costs, damage costs, and avoidance costs. Damage costs are those that result in out-of-pocket expenses or direct economic losses because of exposure to pollution. Psychic costs are the mental discomfort and anguish persons feel because of pollution. This includes physical effects, such as smarting eyes and shortness of breath, that people experience, but which do not result in direct expenses or economic losses. Avoidance costs are expenses, such as extra painting, air conditioning, and moving, incurred to reduce or avoid pollution effects."

The report comments that in areas subject to excess photochemical smog formation, "over half the reactants can generally be attributed to motor-vehicle emissions.

"Similarly," the report adds, "motor-vehicle emissions frequently are the source of excessive concentrations of carbon monoxide in high-traffic-density urban areas during traffic peaks. In many cities, aircraft operations are the source of high levels of carbon monoxide, hydrocarbons, nitrogen



WASHDAY MIRACLE—*Pipes angled downward bring blast furnace gas to dust catchers and washing equipment. The cleaned gas is then burned to heat the "on gas" stove.*

oxides, and particulates in the vicinity of air traffic terminals."

Passenger cars and light trucks are described in the report as "highly significant and visible pollution sources." Other mobile sources mentioned are heavy-duty motor vehicles, aircraft, motorcycles, railroad locomotives, off-road farm, construction, and garden equipment; and marine engines.

Controls have been established for passenger cars, light and heavy-duty trucks, and aircraft. EPA says it has been studying the other mobile sources, although so far it has issued no control regulations.

Based on increasingly tighter standards, and beginning with 1968, the report estimates cumulative automotive emission-control equipment costs ranging from $54.53 to $82.50 for 1973-74 models to between $327.50 and $428 for the 1977 model year.

The lead-free regulations, the report explains, will cost the consumer about $2.4 billion from 1974 to 1979. Ninety percent of this cost, the report adds, is due to the need to install a third pump at service stations and to modify the gasoline trailers and storage tankers to distribute lead-free gasoline. The impact on the consumer, the report says, will be less than a four-tenths cent per gallon increase in the cost of gasoline, assuming that 700 billion gallons of gasoline are consumed in the five-year period.

The estimated cumulative national costs of light-duty vehicle emission controls are calculated in the report at $13.4 billion up through 1974 and $57.29 billion through 1979.

Cumulative national costs for aircraft emission control are expected to be infinitesimal in comparison, totaling about $85 million through 1979.

With respect to state transportation controls, the report observes that standards for motor-vehicle-related pollutants have been exceeded in a number of major urban areas.

Of the 247 Air Quality Control Regions in the U.S. in the 1970-71 period, the report says, 54 regions exceeded the air quality standards for oxidant, 29 the carbon monoxide standard, and two the nitrogen dioxide standard. In all, the report comments, 58 regions representing nearly 55 percent of the nation's population exceeded the ambient air quality standards for one or more of these pollutants.

The EPA's plan to achieve air quality standards on a national basis, the report explains, includes the implementation of controls on stationary sources, such as power plants and industrial facilities. The anticipated reductions in pollutant concentrations resulting from implementation of stationary-source controls and new vehicle emission standards, the report adds, are projected to curtail the number of Air Quality Control Regions exceeding the air quality standards to 29 by 1975. These regions comprise about 40 percent of the nation's population.

Emission control essential

Those states containing the Air Quality Control regions that are still projected to exceed the air quality standards, the report affirms, will be required to put into effect appropriate transportation controls, that is, controls on in-use vehicles, to meet the requirements of the Clean Air Act. Control of emissions from in-use vehicles, the report comments, is essential because they are the primary source of hydrocarbon, carbon monoxide, and nitrogen oxide pollutants in urban areas.

"At present," the report says, "there are transportation control plans for 38 cities located in 24 states covering approximately 43 percent of the U.S. population. Additional areas that will probably require control plans in the near future include some 19 cities in 13 states.

"If this occurs, 57 cities representing over half of the nation's population will be subject to some type of transportation controls, including additional stationary source controls. Only 29 Air Quality Control Regions have transportation control measures. The additional AQCRs achieve ambient standards through stationary source control alone.

"Plans for 11 of the 38 cities were totally approvable as submitted by the states. In the other 27 cities, plans were either partially approved by EPA and required additional EPA-devised strategies, or states failed to submit any plans, necessitating EPA development of complete transportation plans . . .

"In addition to emissions reductions, there are substantial energy savings possible from the implementation of the plans. The vehicles miles traveled reduction strategies, when fully operational, could result in fuel savings of over five million gallons each day without the implementation of gasoline rationing measures."

Since there are no acceptable alternatives to cleaning up our environment, it's good to know that cleaner air, though expensive, will also yield economic gains.

Once Ignored, Florida Current Now Viewed As Clean Energy Source

Underwater parachutes or propellers to reap the power of the ocean currents are a practical possibility, according to a group of experts assembled by Commerce's National Oceanic and Atmospheric Administration.

At a workshop organized by the Atlantic Oceanographic and Meteorological Laboratories in Miami, a unit of NOAA's Environmental Research Laboratories, scientists and engineers from throughout the United States met to ponder ways of harnessing the section of the Gulf Stream known as the Florida Current. Their unanimous conclusion: it can be done.

"Over the years," says laboratory director Dr. Harris B. Stewart, Jr., "numerous persons have noticed the swift movement of the Florida Current . . . and have speculated on its potential as a source for useable energy." As long as there were adequate supplies of fossil fuels on land, there seemed little reason to try exploiting the current. But with the recent fuel shortages, and concern about the environment, "suddenly the idea of a fuel-free and nonpolluting energy source seems more attractive than it had as little as five years ago."

The Florida Current, said John Apel, another NOAA scientist, "carries more than 50 times the total flow of all the freshwater rivers of the world right past Miami's front door." If as little as four percent of this energy could be trapped, the researchers estimate that it would be possible to extract between 1,000 and 2,000 megawatts of power—about equivalent to a nuclear power plant.

But is it practical?

Whether this enormous resource could actually be harnessed—economically—was a question for other kinds of experts. "We knew the sort of people we would need to do the evaluation that was required," recalls Stewart. "We wanted ocean engineers, heavy marine equipment specialists, turbine design engineers, corrosion and fouling experts and energy economists."

Last February, at Stewart's invitation, a group of such specialists met for three days on Singer Island, off Palm Beach, to consider the engineering and economic feasibility of the oceanographers' scheme.

The workshop participants concluded that there are, in Stewart's words, "no insurmountable engineering obstacles to trapping the kinetic energy of the Florida Current. It can be done."

The participants estimated that the energy resource available in the kinetic energy of the Florida Current is equivalent to the output of about 25 one-thousand-megawatt power plants. But the amount of energy that could be extracted from the current in practical systems might not exceed the output of two such plants, which might not be worth the investment of time, money, and human resources needed to harness the current.

However, the workshop participants note that there are sizable kinetic energy resources in other ocean and river currents around the world, and that much of the research and development invested in the Florida Current could also be applied to extraction of other types of energy, such as ocean winds.

Even the temperature differences between the relatively warm ocean surface and the colder bottom waters could be exploited, through devices that produce an electric current when their terminals are exposed to different temperatures.

The participants in the NOAA-sponsored workshop considered a number of ways of harnessing the Florida Current: turbines similar to those now used in many plants; vertical, egg-beater-like propellers; rotors with cupped blades. One of the most ingenious, recalls Stewart, was a parachute technique devised by one of the workshop participants, Garry Steelman, who had originally intended it to provide power for his farm in Iowa.

Steelman's technique utilizes a string of parachutes arranged in an underwater ellipse, somewhat like a conveyor belt. The parachutes on top open up in the current, are dragged along by the flow, then collapse to be carried back to the starting point.

Another possibility is "underwater windmills," large, two-bladed propellers that would catch the current the way land windmills catch the wind. The problem with that idea, says Stewart, was the low energy density of the current. "It moves very slowly. We figured that the blades would have to be 100 feet long. By the time you get blades that long, you could easily have one part of the blade in fast-moving water and one part in slow-moving water, which creates structural and engineering problems."

To decide which of these systems is most workable and solve the practical problems of setting up an energy extraction system, the group recommends a year-long study. The Current itself—its oceanography, meteorology, and ecology—must be better understood. The amount of energy available and the environmental effects of extracting it must be determined. Engineers must also measure the amounts of stress that waves or hurricanes may impose on an underwater structure. Methods of keeping the system in place, such as an anchor and tether combination, will have to be evaluated, as well as methods of installing and servicing the apparatus.

Delivery systems

Finally, the energy collected must be transferred to shore and delivered to customers in a useful form and at a reasonable price. One method would use the current's energy to compress air, which could then be piped to shore to drive the turbines in a power plant. But then the problem arose of how to store the compressed air on site before piping it to land. "We thought of storing it in huge underwater balloons, but keeping them in place in the current could get pretty hairy," says Stewart.

Another possible solution would involve building free-flooding concrete housings over the balloons. Or, the energy collected from the current could be used on the site to extract hydrogen from seawater. Hydrogen is a highly efficient, clean fuel that could be bottled and shipped to power plants for burning to generate electricity.

If the results of the year-long study are encouraging, design of an experimental system, laboratory tests, and ocean tests of scale models could begin. The final step would be a small, 5- to 20-megawatt prototype power plant.

The workshop participants estimated that the cost of constructing a full-scale plant and the retail prices for energy from the flowing Florida Current would probably be competitive with costs projected for other energy sources in the 1980s.

Energy Management Digest

CONSERVATION AN ABSOLUTE MUST..."If there is one thing I want to impress upon you," Commerce Secretary Dent told a recent meeting of the Public Relations Society of America, "it is that long-term energy conservation--the efficient use of energy over the long run--is absolutely essential for American business. It is not a last ditch alternative when all else fails. It is a mistake to think that if the oil doesn't keep flowing from the Middle East, or if we can't increase domestic production of energy fast enough to protect ourselves against an embargo, then we can always fall back on energy conservation. On the contrary, energy conservation is not our ace in the hole; it is a trump card to be played now or never. If we fail to conserve, we will be choosing a course of economic and political vulnerability. Energy sufficiency in today's world of costly and uncertain supply and high demand means a total commitment to energy efficiency. The only viable option we have in the short term is to hold down demand. And the only way to do that, without curtailing production, is to use what we have more efficiently."

'REPORT CARD' GETS AN "A"...The first Federal Energy Administration energy conservation award went to Atlantic City Electric for the utility's unique approach to energy conservation in letting its customers know if they are saving electricity each month. The company last March instituted a "comparative energy usage indicator" on its bills to some 250,000 customers. The indicator, a computer printout on the bill, shows the percentage increase or decrease in each customer's use of electricity as compared with the corresponding month last year.

BIGGIES JOINING UP...Solar energy proponents have claimed that one of the reasons the solar technique for heating and cooling homes has been so slow to catch on is that no major manufacturers were producing the equipment. The solar systems were made by small, localized firms without the distribution network or economies of scale necessary to effectively service the entire U.S. market. That situation seems to be ending, as PPG Industries recently initiated production of solar energy collector cells. Other major firms, including General Electric and Westinghouse, have also begun making other components of a solar heating system, including piping and pumps, thermal storage units, and heat exchangers. Westinghouse has announced plans to market a complete solar heating system.

IS THIS TRIP NECESSARY?..."Wider use of telecommunications as a partial substitute for transportation could mean a savings of more than a million barrels of oil a day, according to Assistant Secretary of Commerce for Science and Technology, Dr. Betsy Ancker-Johnson. Noting that the energy expenditure for doing business by telecommunications is very small compared to the energy which can be saved if the requirement to transport people and material can be avoided, she says the concept should be most attractive to cost-conscious business leaders. A recent 82-page National Technical Information Service report discusses percentage of home-to-work travel that could either be eliminated through the use of a centrally-controlled communications network or shifted out of the rush-hour period by performance of part of the work task at home. Occupations are coded to determine their susceptibility to travel substitution. Order Must We Travel? (PB-227-185) for $4 from NTIS, P.O. Box 1553, Springfield, Va., 22151.

BUILDERS' GUIDELINES...Stating that the nation's energy problems are "in a sense, more hazardous than inflation because most people are unaware of their existence and potential economic impact," FEA Asst. Administrator Duke R. Ligon recently told the National Association of Home Builders how to plan future building projects that maximize energy conservation: 1) Insulation in wall cavities and ceilings can save more than 15 percent of heating used for energy; 2) Storm windows and doors can save another 12 percent; 3) Structures should be built with a square floor plan, to expose less surface area to the elements than rectangular buildings; 4) In northern regions, fewer windows should be installed in the north wall, where solar heating cannot be achieved....in the south, windows should be concentrated on the north wall to reduce the summer heat load.

Commerce's Regional Sessions To Help Set Stage For Economic Summit Meeting

A cross-section of American business and industry, large and small, representative of manufacturing, service and minority-owned enterprises, will take part in the Department of Commerce's two regional conferences on inflation. *(See Under Secretary Tabor's column dealing with this subject, on inside front cover.)*

To be held Sept. 16 in Pittsburgh and Sept. 19 in Detroit—the Business and Manufacturing Conferences on Inflation are two of 12 such gatherings being held across the country to obtain recommendations from all sectors of the economy for the President's Conference on Inflation, to be held in Washington Sept. 27 and 28. The conferences are sponsored jointly by President Ford and the Congress. Representatives of labor and the academic community will also attend.

Commerce Secretary Dent has announced that four Senators and four Congressmen will take part in the Pittsburgh conference. They are Senators J. Glenn Beall, Jr. (R., Maryland), Robert Taft, Jr. (R., Ohio), Abraham A. Ribicoff (D., Connecticut), Samuel A. Nunn, (D., Georgia), and Representatives Wilbur D. Mills (D., Arkansas), Thomas P. O'Neill, Jr. (D., Massachusetts), Garry Brown (R., Michigan), and Barber B. Conable, Jr. (R., New York).

The same four House members will also participate in the Detroit conference, Dent said.

Meetings open to public

The Commerce Department's meeting in Pittsburgh will be held at the William Penn Hotel. In Detroit, the conference will be at the Detroit Hilton. Secretary Dent will chair both all-day meetings, which begin at 8:30 a.m. and will be open to the public.

"While we look forward to the recommendations that will emerge from these conferences, we must keep in mind their limitations," Dent said. "We cannot expect instant solutions or that the advice we will get can be considered the last word on how to combat inflation. But these preliminary conferences do represent a final step and an important one in getting economic recommendations from all segments of the economy so that President Ford can lead the attack on inflation in a systematic, far-reaching way. This effort, as he has said, is a bi-partisan national effort to deal with our number one domestic problem."

Focus on fiscal policies

The conferences will focus on fiscal and monetary policies affecting the business and industrial community, effects of government regulations on such matters as productivity, environmental controls, prices and wages, and on international economic developments, such as the availability of raw materials and arrangements to achieve international financial stability.

Secretary Dent added that the President's Council of Economic Advisers and the Office of Management and Budget will make presentations on the economy and on federal budgetary concerns at the conferences.

In addition to the Commerce meetings, other pre-summit conferences will cover: Sept. 16—Dallas—Natural resources and recreation; Sept. 19—Washington—Health and welfare with HEW Secretary Caspar W. Weinberger; Sept. 20—Washington—Banking and finance, with Treasury Secretary William E. Simon; Sept. 20—Los Angeles—Transportation, with Transportation Secretary Claude S. Brinegar; Sept. 23—New York—General meeting featuring the President's economic advisers, and Sept. 23—Washington—State and local governments, with HUD Secretary James T. Lynn.

Earlier sessions included: President Ford's meetings with the nation's economists and labor union leaders; a housing and construction meeting in Atlanta chaired by HUD Secretary Lynn, and a Kansas City session on agriculture and food featuring Agriculture Secretary Earl L. Butz.

Industries Zero-In On Energy Saving

The Department of Commerce and the Federal Energy Administration have initiated a series of meetings with major energy-consuming industries to develop conservation programs on an industry-by-industry basis.

"I am confident," says Commerce Secretary Frederick B. Dent, "that when we approach conservation on an industry-by-industry basis, there will be a significant impact on our energy situation."

Dent identified the industries participating in the meetings as petroleum refining, steel, cement, paper, aluminum and chemicals.

"Our purpose is to form industry-wide energy conservation programs with specific goals," he said. "We hope that these initial meetings will identify specific actions to achieve energy conservation and will also set specific targets within the framework of Project Independence. We are also looking to prime energy consumers to set a leadership example for the entire nation."

Dent warned that if we do nothing to limit consumption our dependence on foreign oil will grow to fully 50 percent of our requirements by 1985. "We cannot afford the roughly $100 billion annually that these imports would cost. Nor can we afford to be dependent on foreign sources for a resource that is the lifeblood of our economy.

"The four-fold increase in the price of imported oil has every industrialized nation in the world gravely concerned about its balance of payments. Energy conservation by business has the potential to prevent the outflow of billions of dollars in U.S. oil payments.

"For the first seven months of this year, our trade balance was in deficit about $1 billion. If you deduct the increased cost of our oil imports, our balance would have been in surplus by $8 billion."

Communities Adversely Affected By Military And Space Cutbacks Receive $7.6 Million In Grants

More than $7.6 million in grants has been awarded to date this year by Commerce's Economic Development Administration to stimulate industrial growth and alleviate unemployment in areas affected by the closing of military bases, shipyards and space installations.

The grants are issued under a federal program instituted to aid individuals and communities that suffer adverse economic impacts as a result of Department of Defense realignments. The President's Interagency Economic Adjustment Committee, consisting of representatives of 18 government departments, was established in 1970 to oversee this program.

The committee assists any community significantly affected by the closing of a military installation that has asked for help.

The assistance can be provided in many ways. For example:

- The Department of Defense transfers no-longer-needed property to civilian use through a local development group.
- The federal agencies provide professional, technical and financial assistance to the communities to help them attract new industries that will generate jobs.
- Funding often includes vocational training provisions to prepare unemployed workers for jobs in the new industries.

Twenty states and Puerto Rico are the beneficiaries of the grants, which will be used mainly to fund planning studies for such facilities as industrial parks, tourism and recreation complexes, airports and privately operated shipyards. Most of these are among the major locations affected by the Defense Department cutbacks announced in April 1973.

Cargo facilities expanded

Stockton, Calif., has already decided on a project to preserve existing jobs and help create new ones to offset unemployment resulting from the cutbacks at Sharpe Army Depot and other defense cutbacks. The Port of Stockton will use its $438,000 grant to help construct a general cargo crane, which will complete facilities for handling general cargo and containers at the port. An additional $40,000 will go to the City of Stockton to help prepare a master plan for developing its waterfront as a tourist center.

Los Angeles County has received $150,000 to help defense contractors diversify and create new jobs. Six other California cities and counties have received EDA grants totaling nearly one-half million dollars.

A $324,000 grant to the Commonwealth of Massachusetts will fund a Joint Commission which will plan re-use of military facilities. In addition to the closing of two major air bases, the state faces loss of jobs through the closing of Chelsea Naval Hospital and cutbacks in shipbuilding at Quincy. The state has received other grants amounting to one million dollars.

Reductions in the space program have created serious unemployment in several areas. Huntsville, Ala., and Brevard and Orange counties, Fla., have received grants of $89,503 and $130,955, respectively, to help create new jobs. Additionally, the City of Orlando, Fla., has received $41,370 to aid in the conversion of McCoy Air Force Base to civilian purposes, and the Key West area has received $74,737 to plan jobs in tourism and recreation to combat unemployment created by the closing of Key West Naval Base.

Closing of missile sites in Palos Verdes, Calif., and North Central Montana have prompted grants to stimulate long-range economic growth.

The State of Montana has also received $195,000 to plan re-use of the facilities of the Glasgow Air Force Base. The program will include:

- Hiring a firm to help obtain financing for industries that have shown interest in locating plants at the base.
- Establishing an engineering unit at Glasgow to provide specific information to industrial prospects.
- Gathering a professional management staff, to be located in the Governor's office.
- Adapting job-training classes for the new firms.

Another Montana community, Fergus County, will benefit from a $11,500 grant that will be used to determine the feasibility of developing a mushroom growing industry associated with abandoned coal mines in the area. New jobs are needed for workers who were displaced by the closing of an Air Force radar station.

Oklahoma's Office of Community Affairs and Planning will use a $26,000 grant to investigate the possibility of establishing a tannery at McAlester, to offset unemployment caused by the reductions at the Naval Ammunition Depot.

The State of Rhode Island has received $500,000 to help plan re-use of naval installations that have been closed. The state's goals are to create jobs and to stimulate long-term economic growth. An additional $102,000 has been granted to the Acquidneck Island Development Corp. to fund a program to encourage communities on the Island to work together in carrying out economic adjustment programs.

A $203,000 grant to Savannah, Ga., will fund a program to stimulate diversified economic growth and reduce unemployment due to the closing of Hunter Army Airfield.

The closing of an Atomic Energy Commission plant in southeast Iowa has prompted a $63,050 grant to a local planning commission to promote economic diversification and new jobs.

Two grants totaling nearly $400,000 have been awarded to the Commonwealth of Puerto Rico to develop the former Ramey Air Force Base and to help attract new industry.

Connecticut, New Jersey, Pennsylvania, Maryland, Virginia, South Carolina, Kansas, Texas, Utah, Oregon and Alaska are other states that have been awarded grants to aid in economic planning.

Several of the grants will be used to fund job-training, to qualify unemployed workmen for the new industries being attracted.

A $150,000 grant to Central Puget Sound Economic Development District will serve somewhat different needs. The grant will help develop a district-wide strategy for meeting employment, environmental and energy aspects of the newly established Trident nuclear submarine base at Bangor. A major goal of the planning program is to assure that unemployed residents of the Puget Sound area have the opportunity to obtain training for jobs at the facility.

Median Income Of U.S. Household Tops $10,000

Median income of U.S. households rose to $10,500 in 1973, an 8.4 percent increase over the 1972 household median of $9,700. Commerce's Bureau of the Census reports that, although part of the increase was eroded by price increases, the net gain in real purchasing power was 2.1 percent.

Of the 69.9 million households, 5.4 million (7.8 percent) had incomes of $25,000 or more and 15.4 million (22.1 percent) had between $15,000 and $25,000 in 1973. A breakdown of the remainder shows that 15.8 million had $10,000 to $15,000; 10.2 million were between $7,000 and $10,000; 7 million in the $5,000 to $7,000 bracket; and the remaining 16 million households had less than $5,000.

About 42.5 million of the household heads (61 percent of the total) had finished 12 years of schooling or more, and their households received 72 percent of all 1973 household income. Ten and one-half million households (15 percent of the total) were headed by persons with four or more years of college, and these got 24 percent of all household money income in 1973.

Single copies of the report, "Household Money Income in 1973 and Selected Social and Economic Characteristics of Households" P-60 No. 96, may be obtained for 75 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Commerce district offices in major cities.

Broad Business Implications Seen In Possible Population Decline For Rest Of Century

A continuation of the slowdown in U.S. population growth is anticipated for the remainder of the Twentieth Century, with broad implications for the business community as it seeks to meet changed conditions and demands.

Projections as to what is expected to happen in population growth, age-sex and geographic distribution, households, education, labor force, and other factors, are made in a report entitled "Population of the United States: Trends and Prospects: 1950-1990," recently issued by Commerce's Bureau of the Census.

The report estimates that the total U.S. population, including armed forces overseas, for the year 2000 will range from 251 million to 300 million. The population now is estimated at around 212,638,000.

The low projection for 2000 is based on the assumption that women who enter childbearing ages in future years will average 1.8 births per woman, and the high projection assumes that they will average 2.8 births per woman. Thus a difference of one birth per woman will mean a difference of nearly 50 million in the size of the population in a little more than 25 years. The birth rate per woman rose in the "baby boom" era to a peak of 3.8 in 1957, highest since World War I, and then dropped to 1.9, lowest ever recorded for the U.S.

American Indians rally

Between 1950 and 1970 the number of American Indians in the U.S. more than doubled, rising from 357,000 to 793,000. This growth, the report explains, reflects the especially higher fertility rate and declining mortality among Indians.

The 18 to 24 youth population, the report explains, likely will show a 4 percent net decline between 1972 and 1990, meanwhile there will be sharp fluctuations in the growth rate. Between 1972 and 1980 the youth population is expected to increase by 13 percent, but between 1980 and 1990 to decline by 15 percent.

The growth rate for the 25 to 44 age group is expected to rise by 24 percent between 1972 and 1980, and 26 percent from 1980 to 1990. The number of older adults of working age, the report says, will grow very little from 1972 to 1990, while the aged population will increase by about one-third, due to the large gain in the number of births, especially up to the early 1920s, the decline in age-specific death rates, and the heavy volume of immigration, especially prior to World War I.

Changes in household arrangements, the report comments, will be influenced by attitudes relating to the disposition of persons to marry, to divorce, and to pursue careers early in adult life that enable them to maintain households independent of their parents. Another factor is the increase in the number of older people who live alone after their marriage is dissolved.

Husband-wife households, the report explains, constituted three-fourths of the households in 1970 but accounted for only one-third of the increase in the number of households between 1970 and 1973. The number of households headed by women comprised one-fifth of the households in 1970 but accounted for about two-fifths of the increase in the number of households during the three-year period. The increase in households with a man as head and no wife present has been disproportionately large.

Despite the decline in the birth rate, the report says, the effect to date on the number of households will not be evident during the 1970s. The birth rate changes, however, will have a substantial impact on the number of households in the early 1980s, when persons born after 1960 become a substantial proportion of those who are setting up their own households.

The report observes that, while marriages have been occurring at a rate of about two million annually, many more than one million marriages are dissolved each year by death or divorce. As a result, the increase in the number of husband-wife households has amounted to less than a million a year. This rate of increase is expected to continue at about the same pace for the next two decades.

The number of husband-wife households whose heads are relatively young, the report says, will grow rapidly during the 1970s, as persons born in the 1950s, when birth rates were high, establish households. The report comments that since their families will be incomplete, and since young families typically rent apartments rather than buy houses, there should be a relatively great demand for apartments in this period.

The number of marriages of persons under 30 years old, the report explains, should be relatively high for more than a decade, then decrease somewhat and level off during the 1980s, stabilizing after the relatively large number of persons born in the late 1950s and early 1960s pass through the marrying stages. This stabilization, the report observes, may portend a more stable demand for housing units on the part of husband-wife families sometime after 1980.

The report comments that a possible effect of these factors could be a continuing demand for smaller housing units, both apartments and houses, than is the case at the present time.

The total labor force of the U.S. is expected to rise by nearly one-fifth during the 1970s; that is, from 85.9 million at the beginning of the decade to 101.8 million in 1980, according to projections prepared by the U.S. Bureau of Labor Statistics. The rate of growth is expected to decline to only 11 percent in the following decade. At this rate, the labor force is estimated to reach 112.6 million in 1990.

More young workers

A large increase in the number of young adult workers is a salient feature of the prospective changes in the labor force during the remainder of the present decade. The teenage labor force, which rose from 5.2 million in 1960 to more than 7.6 million in 1970, is expected to continue growing, but at a slower pace, and to reach a peak in the late 1970s. Thereafter, the size of the group may be expected to decline slowly, reaching 8.3 million in 1980.

The slower rate of increase, the report says, should enhance the effectiveness of measures designed to reduce the high unemployment rate among teenagers.

Other comments by the report on the work force follow:

The number of workers aged 20 to 24 is expected to grow rapidly during the current decade, but again at a much slower pace than during the 1960s. On the other hand, the group aged 25 to 45 will show a sharp increase in this decade as the large postwar baby crop moves into this age group. The number of workers aged 35 to 44 is projected to increase by 12 percent during the current decade to 18.7 million in 1980.

The group aged 45 to 54, which generally includes a large proportion of persons at the peak of management and earnings, is projected to decline by nearly 600,000 during the persent decade to 16.4 million in 1980. At the latter date, this group will consist essentially of the relatively small number of persons born between 1925 and 1935, which includes some of the persons born during the depression of the 1930s.

The number of older workers, aged 55 and over, increased by about 13 percent during the 1960s and is expected to rise by an additional 11 percent during the 1970s.

The sex distribution of the projected labor force is not expected to change greatly in the 1980s. The proportion of women workers is expected to remain at about 39 percent in both 1980 and 1990.

As of 1970, 8.3 million persons lived on farms, representing only four percent of the total U.S. population. Unless an unexpected development should reverse the historic decline in farm population, it will probably tend to stabilize near the current level.

U.S. Buying Less, Paying More For Home Audio/Video Imports

U.S. imports of all home entertainment audio and video electronic products, except auto radios, declined in the first-half of 1974.

The declines, reflecting a general downturn in U.S. demand, ranged from a low of 2.5 percent in monochrome TVs to a high of 63 percent in radio/phonograph combinations, Commerce Department data showed. Unit decreases were also registered in home-type radios (down 19 percent), tape recorders/players (down 11.7 percent), phonographs/record players/turntables (down 6.2 percent) and color TVs (down 6 percent).

Despite the decline in U.S. auto sales, unit imports of auto radios increased 16 percent.

Although there was a substantial drop in unit volume received from foreign suppliers, continuing price increases kept the value of January-June imports at virtually the same level as in first-half 1973, about $875 million. Illustrative of the situation were phonographs/record players/turntables, a product category in which the value of imports increased 13.9 percent, while the volume dropped 6.2 percent.

Imports from Japan, the leading foreign supplier, at $480 million, were down 13.6 percent from the $555 million total for the first six months of 1973. In an unprecedented development, the Japanese posted unit declines in all audio and video product categories.

As a result of phaseout of U.S. subsidiary monochrome TV assembly operations there, shipments from Mexico dropped sharply from $14.9 million to $4.6 million.

Strong gainers

Counter to the declines of Japan and Mexico, strong gains were registered by Taiwan, South Korea, Brazil and Singapore.

Imports from Taiwan, produced in major part by U.S. and Japanese subsidiaries, totaled $183 million, a 44 percent increase over the $126 million shipped during the first-half of 1973.

South Korean shipments, mainly from rapidly expanding Korean-Japanese joint venture operations, showed the highest percentage gain of any foreign supplier, up 137 percent to $42 million.

Imports from Brazil, almost exclusively of auto radios, were up from $6 million to almost $14 million. Shipments from Singapore, primarily in home-type radios, increased from $11 million to nearly $16 million.

Detailed home entertainment import statistics for the January-June periods of 1972, 1973 and 1974, including country-of-origin cumulative six-month data by individual products and other pertinent information, are available upon request from the Industrial Products Division, Bureau of Resources and Trade Assistance, U.S. Department of Commerce, Washington, D.C. 20230. (202-967-5124)

Study Will Define Extent Of Lead-Based Paint Poisoning In U.S.

An experimental survey of 4,000 Pittsburgh dwellings to determine the nature and extent of the lead-based poisoning problem has begun by Commerce's National Bureau of Standards.

It is believed that 12,000 to 16,000 children become blinded, mentally retarded or otherwise impaired each year due to the ingestion of bits and chips of lead-based paint. More than 500,000 children have abnormally high levels of lead in their bodies and may suffer impairment of varying degrees.

The work is being carried out for the Department of Housing and Urban Development under the 1971 Lead Based Paint Poisoning Prevention Act. NBS has signed a $103,000 contract with the Allegheny County Health Department to perform the survey.

It is the first time that a wide cross section of dwelling units and children in an urban environment will be examined for lead-paint hazards. The published results, expected in about a year, should become a valuable guide for other communities in estimating the size and severity of the problem.

The Allegheny County Health Department will examine physically the dwelling units in Pittsburgh and use instruments to measure the lead content of painted surfaces. They will also test children in these residences, who are six years of age or younger, for elevated blood levels.

The raw data collected by county inspectors will be analyzed by NBS researchers who will produce a handbook for distribution to government agencies and other interested organizations.

Foreign Visitors To U.S. Increase In Jan.-June

Trends in overseas (excluding Canada and Mexico) visitor arrivals in the United States for the first six months of 1974 showed increases during the first four months, small drops in May, and sharp declines from some nations in June.

Total overseas arrivals were up 5.9 percent in the first six months of the year compared to the same period in 1973, according to figures released today by the United States Travel Service, the Commerce agency which is the national tourism office. This average was helped by a 32 percent increase in visitors from Japan.

Inflation, political factors and increased trans-Atlantic air fares were cited as major factors contributing to declines in European travel to the United States in June.

Total European arrivals in the United States declined more than 25 percent in June 1974, compared to the same month a year ago. All 20 European nations reported in a USTS analysis recorded June declines ranging from 8 to 40 percent.

In comparison, U.S. citizen departures to Europe are estimated to have declined 20 percent during the first half of 1974.

Eased Gold-Buying Rules Impact On U.S. Is Uncertain

Legalization of gold ownership by U.S. citizens is now set for December 31. The effect this action will have on the price of gold is uncertain. Despite the recent signing of the gold legislation, the price of gold has remained at about $150 to $160 per ounce and trading has slowed.

On balance, it appears that gold demand will depend more upon international tensions and the possible weakening of world currencies rather than on the actual gold supply and demand.

Should gold sales occur, they will mark the first time in 40 years that Americans will be permitted to buy and sell gold without a special treasury license. However, gold mining shares (stock) have long been open to U.S. citizens. This year, the purchase of re-struck gold coins has allowed Americans to own as much gold as they want, at modest premiums.

Domestic production accounts for less than 20 percent of U.S. consumption needs. The remainder comes from imports, foreign stocks held in the United States and sold to U.S. manufacturers, and scrap. Industrial stocks normally are steady.

Every year world mine production exceeds actual consumption needs. In recent years therefore, a decline in fabricator use meant that the margin of supply available to meet speculative demand increased.

The U.S. Treasury is a seller of gold to either dampen excess demand for balance of payment purposes or to take advantage of what may be considered "high" market prices.

Several companies are prepared to market gold in the form of bars and small ingots. Trading in gold on commodity exchanges is also anticipated.

Depending on the international monetary situation around the implementation date, the President has authority to alter the effective date for this action.

Federal Units To Outline Services To Small Business

What's the Federal Government done for you lately? Plenty, especially if you're a small businessman. You can learn the details at a Sept. 30-Oct. 1 conference at the Plaza Inn in Kansas City.

Commerce Secretary Frederick B. Dent and Small Business Administrator Thomas S. Kleppe will be featured speakers on a program outlining the services which nine federal agencies offer the small businessman.

This will be the first in a tentative series of conferences on government assistance to small business, projected for each of the ten Federal Regions.

Representatives of three Commerce agencies will describe their services to small business: Domestic and International Business Administration personnel will describe how to get into exporting; the Office of Minority Business Enterprise speakers will outline how their agency assists existing minority business ventures or helps aspiring entrepreneurs get under way; Census Bureau representatives are scheduled to explain the varieties of economic and demographic data their unit can offer, and how it can aid the small firm in making business decisions.

How to get a loan

Small Business Administration officials will outline how to qualify for a loan to expand a business, buy new equipment, or gain working capital. SBA will also provide advice on selling to the Federal Government and getting expert assistance in coping with business problems as they arise.

The Internal Revenue Service offers instruction on how payroll taxes work, where to get information to help solve tax problems, and, what to do when the revenue agent calls.

The Department of Labor's Occupational Safety and Health Administration can tell firms whether or not they qualify for loans to improve health and safety conditions. Labor's Manpower Administration can help businesses find skilled employees without cost, and steer firms to sources of government financing of training costs for the unskilled. The Employment Standards Administration can fill the small businessman in on the laws governing businesses and their employees.

Applying for fuel increase

The Federal Energy Administration administers the fuel allocation program, and can tell small businessmen who are unhappy with their supply how to apply for an increase. FEA experts can also furnish details on conserving energy to cut fuel costs.

The General Services Administration can provide information on selling products and services to the Federal Government, on landing a government contract, and on getting your firm's name on a GSA bidders mailing list.

The Environmental Protection Agency instructs builders on the effect of spill prevention and sewage treatment programs on their business, and on the role of industry in air pollution.

Defense Department officials can provide further particulars on becoming a supplier to a buyer that is in the market for an enormous variety of products.

The Department of Housing and Urban Development will provide details on getting into the housing repair business.

Many of these topics are due for discussion at Kansas City. For full details, write: Small Business Administration, Multi-Agency Conference, Room 2303, 91 Walnut St., Kansas City, Mo. 64106 (816-374-5288).

Foreign Investment In U.S. Increased $3.5 Billion In 1973

The value of foreign direct investment in the United States rose $3.5 billion in 1973 to $17.7 billion at yearend, according to Commerce's Bureau of Economic Analysis.

The increase consisted of net capital inflows of $2.5 billion, reinvested earnings of $900 million, and a small valuation adjustment. Major features of 1973 foreign direct investment in the United States were:

- The net capital inflow consisted of $1.5 billion in equity investments and $1 billion in other capital inflows.
- Almost one-third of the equity investments represented a petroleum-producing country's participation payment to a major U.S.-incorporated petroleum company in the third quarter.
- Capital inflows from Europe were $1.1 billion, an increase of $1 billion. Almost $600 million came from the United Kingdom.
- Capital inflows from Japan rose from less than $100 million to $300 million. Most of the improvement was due to a large reduction in receivables of U.S. trade affiliates from their Japanese parents.
- Earnings on foreign direct investments in the United States totaled $1.8 billion, up 53 percent from 1972.
- The rise in earnings of foreign-owned U.S.-incorporated affiliates, coupled with a reduction in their overall dividend payout ratio, resulted in a 91 percent increase in reinvested earnings.
- Income payments to foreign parents were $900 million, an increase of 30 percent.

Full details on 1973 foreign direct investment in the U.S. are given in the August issue of *Survey of Current Business*, available for $2.25 from District Offices of the Department of Commerce, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

(Meanwhile, it was announced by the Bureau of Economic Analysis that U.S. direct investments abroad reached a total of $107.3 billion at the end of 1973, up $12.9 billion during the year. The increase included $8.1 billion in reinvested earnings and $4.9 billion in capital outflows.)

Bulging Great Lakes Remain At High Levels

The Great Lakes are currently well into their third season of high water levels, a condition which has occurred only twice before in this century, and scientists are making no predictions when this condition will abate. The outlook for next year is for continued high lake levels.

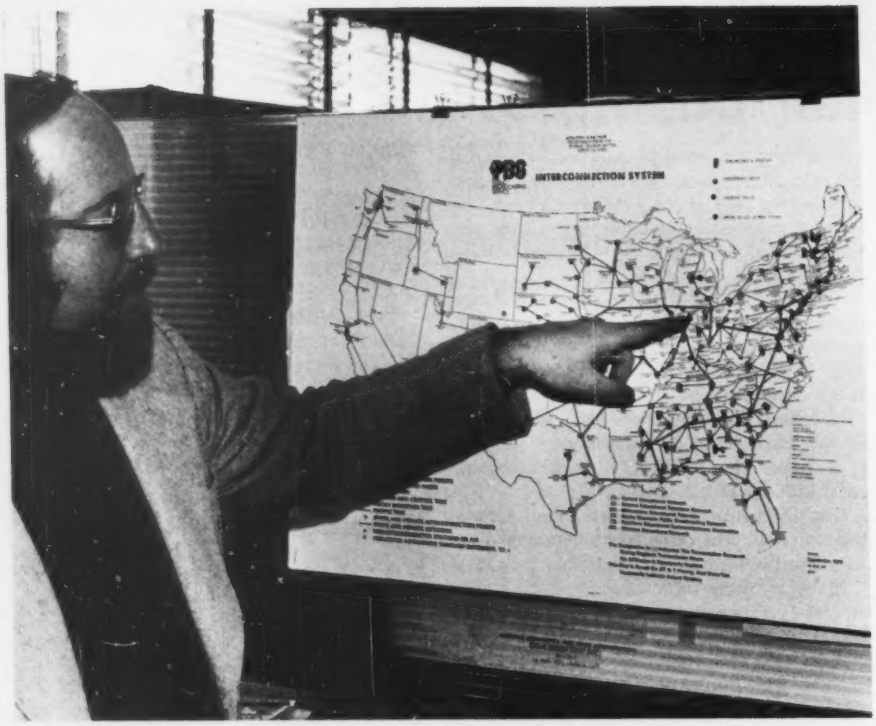
The Lake Survey Center in Detroit says that high water levels such as these usually persist for only about two years. And forecasters at the Commerce Department agency give little promise that the rate of precipitation is likely to slacken in the near future.

Lakes Erie and St. Clair have already broken the record high level of water they set last year in May. The rest of the Great Lakes are expected to continue well above their long-time averages, although they are not expected to break previously established record .

Scientists from the National Oceanic and Atmospheric Administration say that when the weather settles into its usual pattern and the amount of precipitation returns to normal, the water levels will go down. The current six-month lake level forecast, however, calls for continued high levels through December.

The present high lake levels are primarily due to heavy precipitation, which has been 16½ inches above normal since 1965. This condition has been aggravated by below-normal evaporation.

Because of their huge size and storage capacity and relatively small outlets, the Great Lakes do not respond quickly to changes in supply. Once the lakes are high, the small outlets restrict the flow and the levels remain high, even when the supply decreases. The Great Lakes contain the world's largest supply of fresh water, nearly 5500 cubic miles or enough to cover continental United States to a depth of over nine feet.



TELEVISED WEATHER REPORT—*NOAA's Edward M. Gross indicates public broadcasting stations carrying the National Weather Service's weather program for pilots.*

Televised Weather Show Brings Data To Private Pilots

A weekly televised weather information program for private pilots, produced by the Maryland Center for Public Broadcasting in cooperation with Commerce's National Weather Service and the Department of Transportation's Federal Aviation Administration, has gone nation-wide and is now carried by more than 180 Public Broadcasting System television stations. The program is funded by the Aircraft Owners and Pilots Assn.

The program began at MCPB in 1972, then expanded to the Northeast, and then to the eastern seaboard states. Now it is broadcast by West Coast stations as well as others throughout the country.

Pilots get 12 and 24-hour forecasts

The 30-minute program provides such information needed by pilots as surface weather, ceilings and visibilities, freezing levels, turbulence, icing conditions, 12 and 24-hour flying weather forecasts and wind patterns at different altitudes. It is aimed at general aviation pilots, including owners and pilots of both recreational and commercial airplanes.

The program is telecast two evenings a week, on Thursdays and Fridays. Plans are under way for developing a daily morning weather show in the future.

The programs are divided into three segments. The first 12½ minutes are devoted to general weather patterns across the country, in much greater depth than is provided by commercial television. A flight service specialist from FAA gives the briefing, live on camera, using National Weather Service guidance material.

The next two-and-one-half minutes are allocated to the local stations, to run taped weather reports and forecasts for each immediate area. These originate from 41 NWS forecast offices, from which weather service employees provide a two-day local weather outlook within two hours of air time.

To expedite this procedure, Commerce has installed automatic recording devices at 13 of the forecast offices, so that the weather forecasters can record the needed information, and the area television stations can call in and make their own tapes from it.

Central locations that can serve several television stations were selected, enabling the reporter to record one statement rather than seven or eight separate ones. Eventually the entire network will be equipped with automatic recording machines.

The final 15 minutes of "Aviation Weather" cover general material of interest to pilots, such as discussions of cloud formation, warm and cold fronts, use of instruments, effects of fuel shortages, and air safety.

AUTOMATED WEATHERMAN — *Thirteen Weather Service forecast offices now have an automatic recording device that tapes the reporter's forecast, then plays it back to television stations that call in and tape it.*

State Fisheries Legislation To Get Expert Assistance

A comprehensive study to help state legislators formulate legislation for managing fisheries will be conducted by the Council of State Governments under a contract signed recently with the National Oceanic and Atmospheric Administration. High on the list of issues to be studied are the present and potential roles played by state governments in managing fisheries along the seacoasts and in the Great Lakes.

The Council's Committee on Suggested State Legislation produces an annual volume of suggested state laws on many subjects. In addition to a "model" act on fisheries management, a specially assigned task force under terms of the new contract will prepare a detailed report covering fisheries management at the state level. The recommendations and report will be presented to state representatives at a national conference of the Council in the spring of 1975.

The task force will be composed of state officials, including state legislators and administrative officers having major responsibilities in state fisheries management programs.

To obtain independent perspectives on the framework of legislation that may be proposed, considerable travel will be undertaken by task force members. They will contact fisheries agency directors, industry leaders, recreational fishermen, and other authorities on the needs of U.S. fisheries.

The Council of State Governments is a research and service organization, jointly supported by all the states, which supplies extensive information intended to benefit the states within the federal system, assist in state-federal liaison, and provides staff services for affiliated organizations.

Capital Spending By Business Robust In Second Quarter

Capital spending by business rose 3.8 percent in the second quarter of 1974 to a seasonally adjusted annual rate of $11.4 billion, according to a survey conducted in late July and August by Commerce's Bureau of Economic Analysis. Spending rose 3.4 percent in the first quarter. Increases of 1.4 percent and 2.8 percent are planned for the third and fourth quarters of the year.

Commerce Secretary Dent called the announcement that American business has continued expending funds for new plant and equipment at a record rate of about $112 billion, "indeed encouraging. It reflects confidence in our economy, and also over the longer term, will contribute to reducing inflation through increasing production in this country."

Spending for the full year 1974 is now expected to total $112.2 billion, 12½ percent above 1973—virtually unchanged from the 12.2 percent expected increase reported in the May survey. Spending increased 12.8 percent in 1973 and 8.9 percent in 1972.

The second quarter annual spending rate was $0.8 billion higher than the $110.6 billion expectation previously reported in the May survey; third and fourth quarter expectations are unchanged.

Capital spending in the first half of 1974 was 7 percent higher than in the last half of 1973, after adjustment for seasonal variation. Investment increased 11 percent in manufacturing and 4 percent in nonmanufacturing. In manufacturing, the largest increases—20 percent or more—were reported by the primary metal, transportation equipment, petroleum, and paper industries.

In non-manufacturing, railroads and electric utilities reported increases of 13 percent and 8 percent, respectively.

Five percent increase expected

For the second half of 1974, spending is expected to increase 5 percent—6½ percent in manufacturing and about 4 percent in nonmanufacturing. In manufacturing, the largest proportional increases are expected by the stone-clay-glass and paper industries. In nonmanufacturing, the railroad, "other transportation," mining and gas utility industries account for most of the expected increase.

Both manufacturing and nonmanufacturing industries expect increased capital spending for the full year 1974, with a more pronounced increase for manufacturing. All major manufacturing industries except rubber are expecting increases. Durable goods producers expect a 19 percent increase, with strong advances in aircraft (48 percent), primary metals (35 percent), motor vehicles (28 percent) and nonelectrical machinery (24 percent). Nondurable goods manufacturers expect a 21 percent increase. Paper and petroleum firms lead with respective increases of 42 and 39 percent. The chemical industry expects a 20 percent increase.

In nonmanufacturing, railroads expect an increase of 23 percent, and "other transportation"—reflecting large outlays for the Alaskan pipeline—34 percent. Electric and gas utilities, mining and communication firms expect increases of about 10 percent. The commercial group expects little change, while airlines expect a reduction of 13 percent from 1973.

Investment projects started by manufacturers during the second quarter of 1974 totaled $14.2 billion after seasonal adjustment, compared with $11.8 billion in the first. Starts totaled $12.4 billion in the second quarter of 1973. Both the durable and nondurable goods sectors reported record starts in the second quarter, reflecting large increases for the primary metal, transportation equipment, petroleum and paper industries.

New projects started by manufacturers exceeded their capital expenditures in the second quarter of 1974, resulting in an increased carryover—the amounts still to be spent on plant equipment projects already underway. Seasonally adjusted carryover at the end of June totaled $35.9 billion for all manufacturers, up $2.9 billion from the end of March and almost $9 billion above June 1973.

Starts by public utilities totaled a record $14.6 billion in the second quarter, $4.1 billion more than in the first. Carryover of projects also rose a record $9.3 billion during the second quarter to a total of $78.6 billion at the end of June.

Calendar For Businessmen

Sept. 23-26 — Washington — 10th Annual Marine Technology Society conference, Sheraton-Park Hotel. Sponsor: Marine Technology Society. Featured speaker: Dr. Robert M. White, Administrator, NOAA. For information, Marine Technology Society, 1730 M St. NW., Washington, D.C. 20036. (202-659-3251.)

Sept. 23-27—Dallas—First session of 4-part AMA Management Course, Royal Coach Motor Hotel. For information, American Management Assn., 135 West 50th St., New York, N.Y. 10020.

Sept. 23-27—New York—American Management Association seminar on Fundamentals of Modern Personnel Management. For information, AMA, 135 West 50th Street, New York, N.Y. 10020.

Sept. 24 — Pittsburgh — 1972 Economic Censuses user conference. For information, U.S. Dept. of Commerce Pittsburgh District Office.

Sept. 26-27—Atlanta—Regional Operations and Automation Workshop, Stouffer's Atlanta Inn. For Information, American Bankers Assn., 1120 Connecticut Avenue NW., Washington, D.C. 20036. (202-467-4332.)

Sept. 30-Oct. 4—New York—Plastics Seminar For Industry—Extrusion Principles and Practices, Barbizon Plaza Hotel. Sponsored by New York University. For Information, Ms. Sandy Padrick, New York Management Center, Dept. 14NR, 360 Lexington Ave., New York, N.Y. 10017. (212-953-7269.)

Oct. 6-8—Boston—Northeastern Industrial Development Assn. annual conference, Parker House. For information, Richard L. Kelso, Maine Dept. of Commerce & Industry, Augusta, Me. 04330. (207-289-2656.)

Oct. 6-11—Denver—Water Pollution Control Federation annual convention, Currigan Hall/Denver Hilton. For information, Water Pollution Control Federation, 3900 Wisconsin Ave., Washington, D.C. 20016. (202-362-4100.)

Oct. 7-10—Chicago—Pack Expo '74, McCormick Place. Sponsors: Packaging Machinery Manufacturers Institute, Packaging Institute/USA, Packaging Education Foundation.

Oct. 8-9—Washington—National Conference and Shippers Dialogue, L'Enfant Plaza Hotel. Sponsor: The Containerization Institute, Inc., 60 East 42nd St., New York, N.Y. 10017. (212-697-3120.)

Oct. 9—Cleveland—Input/Output Symposium, Cleveland Engineering and Scientific Center. Sponsors: Cleveland Engineering Society, Commerce Cleveland District Office, Greater Cleveland Growth Assn. For information, Cleveland Engineering Society, 3100 Chester Ave., Cleveland, Ohio 44114. (216-361-3100.)

Oct. 17-18—Washington—Regional Operations & Automation Workshop, Washington Hilton. For information, American Bankers Assn., 1120 Connecticut Ave. NW., Washington, D.C. 20036. (202-467-4332.)

INTERNATIONAL COMMERCE REPORT

U.S. Share of World Exports Of Manufactures Declines Moderately In First Quarter

The U.S. share of world exports of manufactures to foreign markets, excluding exports to this country, declined moderately in January-March to 22 percent, using data expressed in U.S. dollars at constant (first quarter 1971) exchange rates. The loss in the first quarter was the first since the fourth quarter of 1972. This break with the improved 1973 export performance may be attributable in part to the higher foreign currency costs of the dollar in recent quarters, which would tend to reduce U.S. sales volume abroad.

U.S. exporters expanded their deliveries of manufactures by about 9 percent, a slower pace than in the previous quarter, to a seasonally adjusted total of $14.2 billion. On the other hand, exports from the other 14 leading world suppliers, measured in constant exchange rates, advanced by 12.5 percent. As a result of these different growth rates, this country's standing slipped in the first quarter by half a percentage point. Nevertheless, the U.S. share remained slightly above the average for 1973.

When trade is measured in U.S. dollars reflecting exchange rates prevailing during each quarter, the value of world manufactures is higher and the U.S. share therefore lower, since most major currencies

U.S. Share Of World Exports Of Manufactures

Adjusted for Seasonal Variation

Commodity	U.S. exports (million dollars)	U.S. share of world exports to foreign markets[1]: (% based on current rates of exchange[2])	(% based on constant rates of exchange[2])
Manufactures, total			
1972 1st quarter	8,250	18.8	20.5
2nd	8,159	18.0	19.7
3rd	8,685	19.2	20.9
4th	9,203	18.6	20.2
1973 1st	10,010	18.6	21.0
2nd	10,912	18.2	21.6
3rd	11,709	17.4	21.8
4th[3]	13,033	18.7	22.5
1974 1st[3]	14,234	19.2	22.0
Chemicals			
1972 1st quarter	1,047	19.0	20.7
2nd	952	17.0	18.6
3rd	1,014	18.2	19.8
4th	1,157	18.7	20.3
1973 1st	1,230	18.0	20.4
2nd	1,343	17.8	21.3
3rd	1,501	17.1	21.7
4th[3]	1,717	19.5	23.7
1974 1st[3]	2,014	18.8	21.8
Nonelectric machinery			
1972 1st quarter	2,334	24.9	26.9
2nd	2,305	24.2	26.2
3rd	2,435	25.6	27.6
4th	2,567	24.6	26.4
1973 1st	2,718	24.7	27.5
2nd	2,918	24.0	28.0
3rd	3,217	23.6	29.1
4th[3]	3,412	24.1	28.6
1974 1st[3]	3,613	24.8	28.1
Electric machinery			
1972 1st quarter	900	20.9	22.8
2nd	881	20.0	21.8
3rd	946	20.9	22.8
4th	1,013	20.8	22.6
1973 1st	1,139	21.4	24.2
2nd	1,220	20.7	24.5
3rd	1,322	19.8	24.7
4th[3]	1,413	20.4	24.6
1974 1st[3]	1,618	22.1	25.4
Transport equipment			
1972 1st quarter	1,985	26.3	28.5
2nd	1,995	25.0	27.2
3rd	2,154	27.0	29.2
4th	2,217	25.0	26.9
1973 1st	2,472	26.6	29.6
2nd	2,614	25.0	29.4
3rd	2,635	23.1	28.5
4th[3]	3,084	26.2	30.8
1974 1st[3]	3,148	28.4	31.9
Other manufactures			
1972 1st quarter	1,984	11.6	12.7
2nd	2,026	11.4	12.6
3rd	2,136	12.2	13.3
4th	2,249	11.8	12.9
1973 1st	2,451	11.5	13.1
2nd	2,817	11.7	14.1
3rd	3,034	11.4	14.4
4th[3]	3,407	12.2	14.8
1974 1st[3]	3,841	12.6	14.6

Note: First quarter 1972 U.S. exports and U.S. percentage shares were inflated because of strike-delayed shipments. The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition. Data have been revised from previous issues.

[1] World exports are defined as exports from the 15 major industrial countries. Percentage shares are based on values excluding shipments to the United States. These nations, which account for 80 percent of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

[2] In the two series of U.S. percentage shares presented, the first column shows shares based on current rates, the official rate of exchange for merchandise shipped during each period, and the second column shows shares based on data measured at constant rates of the first quarter 1971, prior to widespread currency changes.

[3] Preliminary.

have appreciated against the dollar since April 1971. In late 1973, however, foreign currencies began to depreciate against the dollar. They weakened more sharply in the first quarter of 1974, although still remaining substantially above their April 1971 levels. Valuing foreign suppliers' trade at prevailing rates, shipments other than those to the United States climbed by about 6 percent, and the U.S. position improved over the final quarter of last year by half a percentage point to 19.2 percent.

Neither method of measurement provides an entirely satisfactory view of the U.S. competitive position. The **constant** exchange rate measure does not reflect the effect of exchange rate changes, occurring in the period under review, on prices and sales volumes. The **current** exchange rate measure, on the other hand, only takes into account the effect of shifts between the dollar and major exporters' currencies, but does not show the effect of the changing relationships between the currencies of each of the 15 exporting nations and those of the countries to which their manufactures are shipped. In order to provide continuity in this quarterly series until a more accurate method of measurement can be developed, the analysis that follows is based upon U.S. dollars reflecting constant rates of exchange.

The overall U.S. share loss during the first three months of 1974 resulted mainly from a substantial drop in the U.S. portion of chemicals trade, accompanied by a smaller fall in nonelectric machinery. These share declines more than offset gains in transport equipment and electric machinery.

The United States recorded its steepest share decline in chemicals, down nearly two full percentage points from the fourth quarter to 21.8 percent. Although U.S. exports of chemicals rose by a substantial 17 percent, the growth of chemical sales by other suppliers was significantly faster. A strong upsurge in shipments of organics, especially coal tar and other cyclic intermediates, contributed most to the increase in U.S. exports, though deliveries of plastics and resins advanced as well. Shipments of special nuclear materials, particularly to Japan, declined from their exceptionally high 1973 levels.

In the world market for nonelectric machinery the U.S. position weakened by half a point to 28.1 percent. U.S. sales climbed, nevertheless, with sizable gains in power-generating and textile machinery and in office machines. Partly offsetting these increases were lower deliveries of materials handling equipment, particularly to the USSR, and of metalworking machinery.

A marginal loss was posted in this country's share of "other" manufactures, a diverse group encompassing mainly semifinished goods and consumer nondurables. It was the first decline in this group in more than a year. Shipments of a wide variety of U.S. goods increased, however, influenced by continued high levels of demand abroad and rising prices. Notable gains were posted in sales of steel—especially tubes, pipes, and fittings—textiles, paper and paperboard and diamonds. Conversely, sales of nonferrous metals, notably copper and aluminum, declined.

U.S. exporters posted their strongest share gain in transport equipment despite a modest 2 percent increase in sales, which contrasted with slight declines in shipments from other suppliers. Exports of automotive goods expanded modestly both to Canada and other countries. The small advance in sales of civilian aircraft, attributable mainly to larger deliveries to Japan, Germany, France, and Spain, was offset by a sharp decline in shipments of military planes.

The U.S. position also improved substantially in the electric machinery import market, rising by almost a full percentage point to 25.4 percent. Exports of U.S. telecommunications equipment, particularly navigational aids and search and detection apparatus, were especially strong. At the same time, higher valued shipments of semiconductors and parts, measuring and controlling instruments, and power machinery also contributed to the overall U.S. gain.

U.S. SHARE OF WORLD EXPORTS OF MANUFACTURES

Commodity	U.S. exports (million dollars)	U.S. share (% of world exports to foreign markets[1])
Manufactures, total		
1958	11,221	27.7
1959	10,867	25.6
1960	12,716	25.3
1961	12,924	24.1
1962	13,835	24.6
1963	14,459	23.6
1964	16,718	24.0
1965	17,648	22.8
1966	19,510	23.0
1967	21,090	23.3
1968	24,113	23.6
1969	27,132	22.5
1970	29,730	21.3
1971	30,845	19.9
1972	34,285	18.6
1973	45,574	18.2
Chemicals		
1958	1,410	29.6
1959	1,562	29.1
1960	1,779	29.6
1961	1,793	28.2
1962	1,880	27.9
1963	2,013	26.9
1964	2,369	27.1
1965	2,407	24.7
1966	2,693	24.6
1967	2,812	23.7
1968	3,296	24.2
1969	3,393	21.9
1970	3,840	21.9
1971	3,855	19.9
1972	4,162	18.2
1973	5,781	18.1
Nonelectric machinery		
1958	2,818	35.0
1959	2,835	33.8
1960	3,250	32.7
1961	3,605	31.1
1962	3,945	30.9
1963	4,062	30.2
1964	4,678	31.4
1965	5,068	30.9
1966	5,578	30.1
1967	5,984	30.2
1968	6,347	29.4
1969	7,223	28.8
1970	8,444	28.1
1971	8,561	25.5
1972	9,637	24.8
1973	12,212	24.0
Electric machinery		
1958	1,067	32.8
1959	1,045	30.6
1960	1,090	28.2
1961	1,231	27.0
1962	1,367	27.3
1963	1,501	26.8
1964	1,676	26.2
1965	1,674	24.0
1966	1,916	25.2
1967	2,117	25.8
1968	2,303	25.1
1969	2,703	24.4
1970	3,033	22.7
1971	3,098	21.0
1972	3,741	20.6
1973	5,094	20.5
Transport equipment		
1958	2,491	35.3
1959	2,188	32.0
1960	2,671	33.2
1961	2,515	30.5
1962	2,748	31.9
1963	2,710	28.2
1964	3,058	28.4
1965	3,455	28.4
1966	3,727	28.7
1967	4,539	31.8
1968	5,882	34.3
1969	6,570	32.4
1970	6,542	29.0
1971	7,948	29.5
1972	8,347	25.7
1973	10,813	25.2
Other manufactures		
1958	3,434	19.7
1959	3,237	17.6
1960	3,926	17.6
1961	3,781	16.6
1962	3,895	16.8
1963	4,172	16.7
1964	4,937	17.0
1965	5,044	15.8
1966	5,596	16.1
1967	5,638	15.5
1968	6,285	15.5
1969	7,243	14.8
1970	7,871	14.0
1971	7,383	12.2
1972	8,398	11.7
1973	11,674	11.7

Note: The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition.

[1] World exports are defined as exports from 15 industrial countries. These nations, which account for approximately four-fifths of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan. Exports to foreign markets are total exports excluding exports to the United States.

U.S.-POLISH TRADE TALKS—*The co-chairmen of the discussions at the fourth session of the Joint American-Polish Trade Commission wind up their efforts in Washington. Secretary of Commerce Frederick B. Dent (right) is congratulated by Vice Premier Kazimierz Olszewski, Minister of Foreign Trade and Shipping.*

U.S.-Polish Trade Progress Seen Outpacing Expectations

Progress toward agreements on long-term agricultural trade, a convention to avert double taxation of income, assistance for trade missions and trade exhibitions, and a declaration on economic, industrial and technological cooperation was made at the fourth session of the Joint American-Polish Trade Commission, held in Washington earlier this month.

The discussions were chaired by Secretary of Commerce Frederick B. Dent for the United States and Vice Premier Kazimierz Olszewski, Minister of Foreign Trade and Shipping, for Poland.

Secretary Dent, at a press conference that followed the session, reported that the levels of U.S.-Polish trade are exceeding expectations.

He noted that at the second session of the Joint Trade Commission in November 1972, it was expected that annual bilateral trade between the United States and Poland would be at least triple current levels within the next five years. A tripling of trade would equal $758.4 million.

Trade for the first six months of this year has already reached $333 million, and at this rate would reach $666 million at year's end.

"Thus, in 1974, we would find ourselves only $92.4 million short of our 1977 target. Actually, when the final figures for the year are in, we fully expect American-Polish trade to top $700 million," he observed.

"That represents the rather startling increase of no less than 177 percent since the Commission was established according to the Warsaw Joint Communique of June 1, 1972. Further, the Commission anticipates that bilateral annual trade may reach $1 billion in 1976 and $2 billion by 1980." the Secretary commented.

Other U.S. members taking part in the talks were Thomas O. Enders, Assistant Secretary of State for Economic and Business Affairs; Gerald L. Parsky, Assistant Secretary of the Treasury for Trade, Energy and Financial Resources Policy Coordination; Phillip R. Trimble, Deputy Assistant Legal Advisor of the Department of State; and Lewis W. Bowden, Acting Deputy Assistant Secretary of Commerce for East-West Trade.

Also participating were Ambassador William D. Eberle, Executive Director of the Council on International Economic Policy and the Special Representative for Trade Negotiations; Clayton Yeutter, Assistant Secretary of Agriculture for International Affairs and Commodity Programs, and John A. Armitage, Deputy Assistant Secretary of State for European Affairs.

Polish Commission members participating in the Fourth Session were Romuald Spasowski, Vice Minister of Foreign Affairs; Marian Krzak, Vice Minister of Finance; and Stanislaw Dlugosz, Vice Minister of Foreign Trade and Shipping.

Regional, District Export Councils Are Established

Formation of six Regional Export Councils and 41 District Export Councils to serve as communication links between the business community and the government in helping to carry out national export expansion programs has now been announced.

Approximately 1,000 business and trade experts will serve as members of the District Councils across the United States.

The action by Secretary of Commerce Frederick B. Dent completes the restructuring of the Federal Government's export expansion organization undertaken by the President when he established the President's Export Council last December.

The 22-member President's Council was established to advise the President, the Council on International Economic Policy and the President's Interagency Committee on Export Expansion on matters relating to export trade. Fletcher L. Byrom, Chairman of the Board of the Koppers Company, Inc., Pittsburgh, is chairman.

The President's Council is supported by the six Regional Export Councils, which in turn are supported by the District Councils. The membership of the Regional Councils, which operate in the six Regions of the Commerce Department's Office of Field Operations, includes a member of the President's Council, who serves as chairman; the Director of the Commerce Department's Regional Office, who serves as Executive Secretary; and the chairmen, vice chairmen and executive secretaries of the District Councils in that Region. The District Councils will operate in 41 Districts of Commerce's Office of Field Operations.

Italian Import Deposit Regulation Is Amended

Effective Aug. 1, the value of shipments into Italy exempt from prior import deposit was reduced to 500,000 lire c.i.f. (about $800) from 1 million lire (see *Commerce Today*, May 27, p. 34). The Ministerial Decree also eliminated a number of agricultural items from the prior deposit requirement and reduced selected others to a 25 percent prior deposit requirement.

The prior import deposit regulation, imposed May 7, requires importers to deposit 50 percent of the c.i.f. value of specified imported goods with the Bank of Italy for 180 days.

Expanding Turkey, Israel Food Processing Sales Seen

Turkey and Israel, expanding their capabilities to export some lines of agricultural products and exploring the export potential of others, can be lively markets for U.S. food processing equipment.

A trade mission that submitted this judgment, led by Charles B. Stebbins, Cleveland Commerce District Office Director, included companies that produce can-making equipment, commercial freezers and cold storage items, laboratory equipment, bottling and packaging machinery and other processing lines.

The mission also visited Cyprus, just before the shock waves of civil strife hit the island. Expecting only minor sales opportunities there, the group encountered development plans that could interest U.S. companies, assuming reestablishment of peaceful conditions.

Results good

The participants estimate sales of about $5 million in the three countries over the next year, as a result of the 105 trade leads they uncovered on their visit. Immediate sales included an ice cream freezing machine in Cyprus and two packaging machines for potato chips in Turkey. One representation agreement was signed, in Cyprus, and four others are being negotiated.

Mission members remarked on the advanced state of processing technology in Israel, noting in particular a number of sophisticated cold storage, freezing and canning facilities. Israel's primary goal at this time, it was observed, is to expand capacities in all lines and to handle new products for exports such as goose liver, and some fish items.

Israeli businessmen were found to be interested in discussing complete turnkey projects in the food processing field; they favor and are willing to purchase American products. Israel's dairy industry was seen to be especially ready for new technology and equipment; in general there is a market for all types of cooling and freezing equipment.

David D. Davis, President, Davis International, Youngstown, O., said he had developed enough business leads in Israel to keep him busy for a month on followup actions. "Israel looks good to me," summarized Karl R. Girton of Girton Manufacturing Co., Millville, Pa., who appointed an agent for Israel and handled orders for laboratory washing equipment.

In Turkey the mission met businessmen, trade association officials, and government representatives on all levels. In Ankara, for example, meetings involved national government officials, business consultants, executives and directors of a cooperative. In Adana and Izmir, the background was the rich, fertile farmland where agricultural production is increasing and plans are being made for future food processing plants. The discussions there also emphasized the drive to commercial, banking and manufacturing operations that are independent of Istanbul. Finally the mission met with business and industrial leaders in the metropolitan hub of Istanbul.

"A prodigious market exists in Turkey for some lines of food processing equipment," declared mission director Stebbins, "but in other areas the market is still in an embryonic stage."

"The pending dynamic growth in the Turkish food industry represents a great opportunity for U.S. firms," he commented, "but it will take greater attention than many U.S. firms are accustomed to giving to a market. It will take more personal visits and more invitations to Turkish businessmen to see operations in the U.S. In some areas Turkey is ready for high speed American equipment, but in other areas—such as freezing of foods—Turkish businessmen are loath to make commitments. Milk production and distribution is underdeveloped and sellers of this type of equipment will do exceptionally well over the near term. American can-making equipment is very competitive and much respected."

Borden World Trade's representative, Frank A. Compton, noted that seminars held by local marketing and engineering companies interested in representing American industry are a necessary approach to further trade with Turkey. Borden is now considering such an arrangement. Compton observed that there are too many small, low-production canning lines in operation in Turkey, since every grower wants to be his own canner.

Others comment

Z. Danni Rendeli, of Taylor Freezer, Rockton, Ill., said that the Turkish government is not now granting import licenses for his kind of equipment, but that a local assembly joint venture could be a practical way of entering the market.

In Cyprus the mission was told of plans to set up an industrial free zone, which would include the installation of a complete can-making plant. If this materializes the sales of can-making equipment could be substantial. Such opportunities depend, of course, on the resolution of the current political difficulties.

In addition to those mentioned, the mission participants were: Paul E. Hoar, H. C. Industries, Inc., Miami; Frerney B. Peterson, F. B. Peterson Industries, Inc., Jacksonville, and Jacques Homeyer, Woodman Co., Inc., Decatur, Ga.

BUSINESS CONSULTATION—*U.S. trade mission member Karl Girton (left) describes his company's equipment to Turkish businessmen in Istanbul.*

U.S. BIOMEDICAL EQUIPMENT—*This Akron, Ohio, company exhibit at U.S. Trade Center* INTERMED *show in Stockholm absorbed the attention of viewers.*

U.S. Biomedical Show In Stockholm Taps Expanding Nordic Market

Taking advantage of the expanding Nordic market for advanced biomedical equipment, 33 U.S. companies participated in the successful spring INTERMED show at the Stockholm U.S. Trade Center. A high percentage of the exhibitors were newcomers to the Nordic market.

Off-the-floor sales during INTERMED totaled $185,750. The 20 new-to-market exhibitors, of which 6 were new-to-export, projected additional sales of $1.7 million over the next 12 months. The remaining exhibitors estimated their future sales over one year would be $820,000. The show also produced a large number of agency agreements. Twenty-four Scandinavia representatives were appointed during the show and an additional 22 are expected to be signed.

Analytical instruments and systems drew the most interest from Nordic business visitors, especially those offering unique capabilities to simplify and expedite analytical or diagnostic procedures.

"Disposables" also showed high sales potential. These items, ranging from syringes and surgical masks to transfusion equipment and prepackaged distilled water, were all well received. The high cost of labor involved in the care and maintenance of nondisposable equipment, plus the greater assurance of sterility offered by disposables, are the main selling points.

According to recent research studies, the four Nordic countries will provide a strong market for advanced biomedical equipment over the next several years. The Norwegian and Finnish markets are increasing at an average yearly rate of about 20 percent, Sweden by more than 13 percent, and Denmark by 8 percent. The strong interest in high quality medical and health care throughout the region assures a welcome for technologically superior U.S. products.

Construction Machinery Suppliers May Send Films For Ecuador Exposition

Construction machinery suppliers are invited to send films on their products to Ecuador for exhibiting at the National Exposition on Construction, Nov. 30-Dec. 14. Films should be addressed to: Commercial Section, U.S. Embassy, Avenida Patria y 12 de Octubre, Quito. The Embassy will show the films continuously during the exposition without charge. Spanish films are preferable but films in English are acceptable, if of general interest and uncomplicated.

The exposition is expected to draw some 10,000 persons daily in Quito, which is experiencing a construction boom. Firms wishing to exhibit machinery and equipment should contact Nelson Murgueytio P., Presidente, Camara de la Construccion de Quito, Post Office Box 3176, Quito, Ecuador. Cable, CAMECO; telephone, 237-855.

ALSO IN STOCKHOLM—*At Paper and Converting Equipment Exhibition, Ingvar Ullen (right), Swedish representative of Universal Interloc, explains his firm's process control instrumentation.*

U.S. Pulp, Paper, Converting Lines Attract Scandinavian Producers

Advanced instrumentation and computer/control systems were the outstanding performers in May at the Stockholm U.S. Trade Center's Pulp, Paper and Converting Equipment Exhibition. Thirty-three U.S. companies exhibited a wide range of equipment to a target audience which included top executives of nearly all paper, pulp and converting companies in Sweden and a significant number from Norway and Finland.

The show confirmed that Swedish, Norwegian, and Finnish forest product producers are actively installing new equipment to keep their prices competitive and to meet the demands of a rapidly expanding world market for paper and paper products.

Exhibitors reported that best selling items at the show were: computer based "total" process control systems, process control instruments, chemicals for pulp and paper production, forming and molding systems,

non-woven converting equipment, felt and wire cleaning systems, vibrators, high pressure pumps, pulpstones, cleaning showers and strainers. All of these products were represented by latest state-of-the-art equipment, and this explains why they sold well in this sophisticated market.

Direct off-the-floor sales of pulp and paper machinery during the show totaled $1.5 million. In addition, exhibitors projected sales of $8.3 million during the next 12 months. Those who were new to the Nordic market estimated that their sales would reach $1.7 million. Of the 33 U.S. exhibitors, 12 were new to this area. Besides direct sales, the American participants appointed 8 agents and expect to sign 19 more during the coming year.

Symposium featured

The exhibition featured a symposium on latest technological developments in the industry, with 94 industry specialists—both American and Nordic—attending. Members of the symposium discussed current technical/engineering problems, identified areas for further research, and established contacts which will prove helpful in the future.

Dakar Fair Offers U.S. Product Exposure In W. African Markets

The International Fair of Dakar, to be held Nov. 28-Dec. 15, offers U.S. firms an economical means of product exposure throughout West Africa.

Buyers, sellers, distributors and press from the area will be visiting the fair, which will be the largest commercial fair in West Africa. The emerging West African market and the increasing interest in U.S. products give promise of substantial sales opportunities in many industries.

The American Embassy in Dakar, with the assistance of the U.S. Department of Commerce, is organizing official American participation in the fair. The Embassy has reserved almost 400 square meters for the U.S. exhibition area and will be constructing and designing 3- x 4-meter booths for participants. The cost of a booth—including utilities, janitorial and guard services, printing, and promotion—is $1,900. A participating firm need only ship its display materials to and from Dakar and provide a representative to man the exhibit. Commerce will provide an experienced fair manager to organize the participation and give administrative support to exhibitors.

For participation information contact Shaun Donnelly, Commercial Attache, U.S. Embassy, B.P. 49, Dakar, Senegal. For general information, contact Brad Tyrrell, U.S. Department of Commerce, BIC, Room 6051, Washington, D.C.; phone, 202-967-4304.

BREAKTHROUGH IN MILAN—*L. C. Cox, President of International Biomedical Associates, in pictures at left, made export gains at U.S. Trade Center in Milan, Italy. At right, top, is firm's marketing Vice President J. L. Lewis with hospital waste compactor. At right, below, company official Elmer Craft joins Lewis in discussion at exhibit booth. Another international sales executive, Dan Shaw, is not shown in these photos but is active in preparations for future exhibitions abroad by the Los Angeles company.*

Minority Firm Has Promising Export Debut

A breakout for minority business. That was the comment in the NEWSMEMO column in this magazine earlier this year about the participation of International Biomedical Associates in a trade show abroad. The Los Angeles firm was heading into an activity—exporting—into which few black-directed enterprises have ventured.

The results are now in from the participants at the Biomedical Equipment Exhibition at the U.S. Trade Center in Milan. A major achiever was International Biomedical Associates, with these results: floor sales of $50,000; expected 12-month follow-on sales of $1,500,000; two representation agreements signed during the show, with five others in negotiation, and first sales contacts with buyers from Italy, Spain, Great Britain, France, Sweden, Turkey and Greece.

L. C. Cox, IBA president, summed up his experience: "Our participation facilitated a rapid entry into the European biomedical market. In addition to excellent market research feedback, we were able to obtain distribution contacts in eight European countries . . . excellent exposure to the most influential end-users and prospective distributors in the European Common Market."

The producing companies he represents are from the Southern California area. They are Compacts Ltd., Santa Ana, manufacturer of hospital trash compactors; Ambco Electronics, Los Angeles, producing scintillation counters and audiometers; and Cal-Lab Industries, North Hollywood, offering prepared media serum cultures.

International Biomedical Associates was one of 39 exhibitors at Milan. Overall these participants reported $282,175 in floor sales and project $5.4 million in further exhibition-related sales in the next year. Five representation agreements were signed during the show, and 43 others are in the discussion stage. Two licensing arrangements and one franchising agreement are also being negotiated by the exhibitors.

Next for International Biomedical Associates, more export sales efforts this fall at the Frankfurt U.S. Trade Center.

Worldwide Business Outlook

Finns Are Facing Pressure To Expand Equipment Base

The Finnish economy is now operating at full capacity, utilizing available resources of capital equipment and labor.

A high level of investment—28 percent of GDP in 1973—is a feature of the economy, notes Wallace F. Holbrook, Commercial Attache at the U.S. Embassy in Helsinki. This heavy capital spending has enabled Finland to achieve substantial economic progress since World War II, particularly in recent years. The keen interest of business and government leaders in technological innovation provides many opportunities for U.S. sales, licensing and investment.

The outlook for Finnish investment in the remainder of 1974 is not as encouraging as usual. Plagued by high costs of imported materials, to which increased energy costs are but a further aggravation, Finland has developed a substantial balance of payments deficit. From a level of somewhat over $100 million in 1972, it rose to approximately $400 million in 1973 and the gap could rise as high as $600 million in 1974, according to recent Finnish Ministry of Finance projections.

There is continuing demand for Finnish export products, but limited capacity restricts export expansion in the short run. With credit already overstretched, the Bank of Finland (the Central Bank) has been trying to discourage credit expansion. The result has been a weakening of private investment demand and aggregate investment in 1974 is expected to be less than in the previous year.

However, in the near future, Finland will have to expand its capital equipment base to produce more exports to pay for rising import costs of raw material, especially fuel. This increasing industrialization of Finland, with rapid expansion of shipbuilding, metal fabricating, chemical and plastics, consumer goods and other sectors, will provide increasing opportunities for U.S. products and financing.

Fastest growing product areas

Nearly all the target industries included in the Department of Commerce's current export expansion program will find an expanding market for their products in Finland. A recent analysis of Finnish imports over a two-year period showed that the following product categories recorded sales advances higher than the overall rise of imports for the period under review.

Product categories that enjoyed a high level of import demand and also a high growth rate (50-100 percent) include energy systems, communications equipment and systems, computers and related equipment and building and construction supplies and equipment. Product categories with high demand and a substantial growth rate (20-35 percent) are metal working and finishing equipment and machinery, process control instrumentation, food processing and packaging equipment and laboratory instrumentation.

Another group of products are those in the early stages of product development. These were characterized by a moderate level of import demand but a high growth rate (43-83 percent). This group includes such product categories as pollution control instrumentation and equipment, health care industries and instrumentation, aviation electronics and instrumentation, and graphic arts equipment. Early attention to these fast growing lines should pay dividends to active U.S. exporters.

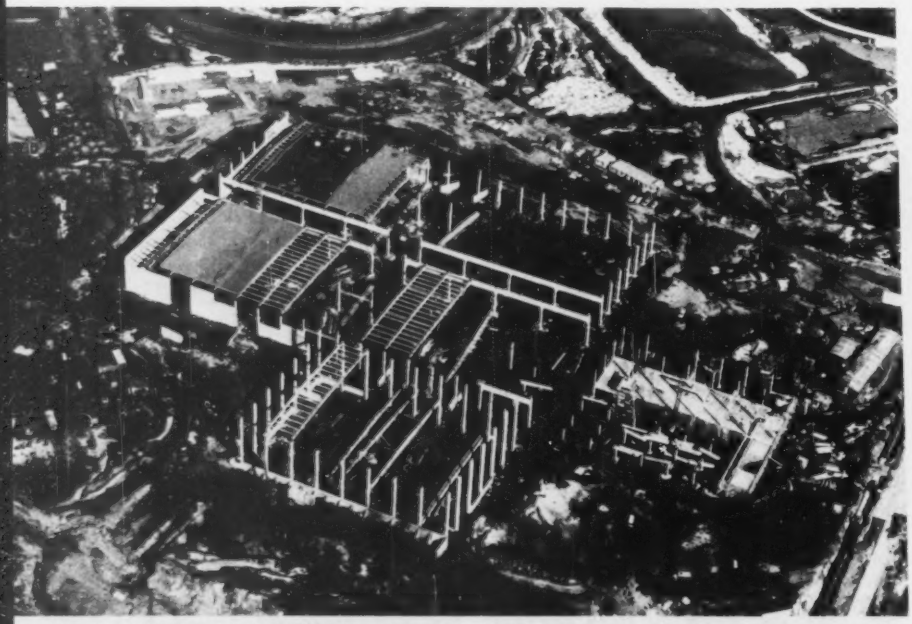
The association agreement Finland ratified with the European Community in November 1973 should encourage expansion of domestic industry, particularly in consumer goods (textile, furniture, footware) as well as in heavier industries and traditional woodprocessing industries. Demand in Western countries for Finnish woodprocessing and retail industry products is expected to remain high and further capital investment will be needed. Domestic pulpwood production is already at sustained-yield limits and imports of pulpwood and more efficient use of Finnish pulpwood will be required.

In 1973 Finnish imports rose by 26 percent over the previous year to a record $4.4 billion. Purchases from the United States also rose—to $207 million—increasing the U.S. market share to 4.7 percent.

The reputation that U.S. products and technology enjoy in Finland is not adequately reflected in market share. There is a continuing flow of Finnish businessmen to the United States to observe U.S. methods and products, but U.S. companies have paid less attention to the Finnish market; our European competitors have been the beneficiary of this relative neglect.

Finnish businessmen seek the latest in technology to keep their export-oriented economy competitive. Recent field trips in Finland by the Ambassador and Economic/Commercial officers have confirmed the innovativeness of Finnish industry but have also confirmed that much of the newest capital equipment comes from other than U.S. sources.

Among leading export categories from the United States that scored a substantial increase in 1973 were office machines, electrical machinery and apparatus, machines for special industries, scientific and controlling instruments and power generating equipment. Other leaders included nonelectric machinery and parts, road motor vehicles and photographic supplies. Exports of many U.S. agricultural products to Finland did well.



NEW FAIR SITE IN HELSINKI—*The Finnish Fair Corporation's new and modern exhibition center is shown here springing up on a site in the Pasila district of Helsinki. It will offer more than 36,000 square meters of covered space, plus a fair ground and extensive parking.*

Trade with the Soviet Union has comprised 15 percent of Finland's overseas commerce. The experience of Finnish businessmen and trade associations in selling to the Soviet Union can be utilized by U.S. firms seeking to penetrate the Soviet market. Utilizing a Finnish firm for both the Finnish and Russian market provides a continuous base for export promotion efforts, and sales in Finland should be more steady than in the massive but irregular Soviet market.

Excellent occasions for promotion of U.S. products are the exhibitions organized several times a year by the Finnish Fair Corporation in Helsinki. In addition to a main fair focusing in alternate years on industrial or consumer goods, the Corporation sponsors specialized fairs which include in the current fiscal year a boat show and an exhibition of business machines and equipment (October). The Industrial Fair in September 1975 will be held at the new fair site in the outskirts of Helsinki.

Japan In Holding Pattern; U.S. Goods Gain In Favor

Prospects for exporting to Japan remain favorable despite the recent Japanese economic slowdown, reports the U.S. Embassy in Tokyo. Factors creating demand and a market for U.S. high technology equipment and consumer goods remain largely intact and the United States continues to be price competitive in many lines.

Demand pressures that prevailed in Japan after mid-1973 have eased, and the short speculative boom that developed about the time of the oil crisis is over. Real GNP declined 5 percent in the first quarter according to preliminary estimates. Manufacturers' shipments have dropped, production rates have been cut back, and the economy is now operating with unused capacity in some sectors.

A buildup of inventories has eliminated most of the temporary shortages of goods that existed around the turn of the year. The economy is now in much better balance and acute inflationary forces are being brought under control. The rise in wholesale prices has slowed.

Nevertheless, recently negotiated wage increases averaging 30 percent, along with high prices of crude oil and other imported raw materials, will continue to put upward pressure on costs during the remainder of the year. For this reason, restrictive government policies are being maintained to prevent a resurgence of demand and additional inflationary forces.

Restrictions on the use of energy by large industrial enterprises are being continued despite adequate oil supplies. Tight monetary and fiscal policies and administrative guidance are holding down housing construction, commercial building, and public works. Consumers have become much more cautious and are no longer building up stocks of household necessities in anticipation of price increases or possible shortages.

Savings have apparently increased as a result of the uncertain economic outlook. Auto sales have been severely depressed since last autumn as a result of the oil situation. Investment in manufacturing plant and equipment remains relatively strong according to recent surveys.

Thus, despite the economic slowdown and the buildup of inventories, the economy has by no means eliminated all the supply constraints which it faced late last year and which contributed to the severity of the inflation.

Slowdown has spread

The economic outlook for all of 1974 is for a much slower rate of growth in real output compared with the 11 percent increase achieved last year. Much of the current economic adjustment was initially confined, as in the United States, to a few sectors, particularly those related to the oil crisis, such as automobiles. More recently, the slowdown has spread to other sectors.

Nevertheless, the current business mood is one of general confidence although there is uncertainty about just how soon the government will terminate the present austerity measures. There is a general view that consumer and investment demand could quickly revive if monetary restraints were eased. Even if the rate of production revives somewhat, it is unlikely that real GNP will increase more than 3-3.5 percent in 1974. The growth of nominal GNP will, however, probably not be much lower than the 24.5 percent rise of last year because of the continuing high rate of inflation.

Japanese industry will continue its movement toward a knowledge-intensive, more service-oriented base. Prevailing high wages, pollution, competition from neighboring low-wage countries and inflation will accelerate this movement toward higher technology. Consequently, there is a continuing need for more sophisticated kinds of equipment in which U.S. producers excel. In addition, large Japanese trading firms making investments in third countries are increasingly looking to the United States as a supplier of capital equipment, which in many cases is price competitive with similar Japanese equipment.

Similarly, the more affluent Japanese consumer, though somewhat more cautious these days, has learned to seek a wider choice. U.S. consumer goods in many areas are competitive in style, price or both. Japanese retailers have found U.S. lines very salable: the large Isetan and Mitsukoshi department stores of Tokyo have held highly successful U.S. promotions. A

SELLING SEVEN-UP IN JAPAN—*A St. Louis Trade Mission that toured Japan last Oct. 17-Nov. 4 stopped in Osaka for a five-day exhibit. Above, the Seven-Up International booth.*

U.S. mail order firm in joint venture in Japan after only a few months of operations is already selling at a rate of more than $1 million a month.

New methods of promotion and distribution are being tried with considerable success. The U.S. Trade Center in Tokyo during the first five months of this year conducted five successful trade shows in high technology lines (bio-medical, laser/electro-optical, micrographics, and metal surfacing). A total of 140 companies participated, reporting immediate sales of over $650,000 and projected sales of $22 million. Most of the participants were making their first concerted effort to enter the Japanese market.

The U.S. Department of Commerce participated in the spring Osaka International Fair with an American consumer exhibition. Projected sales by those participating were estimated at $23 million. A solo exhibition of U.S. consumer goods is being planned in Tokyo for 1975.

Market conditions for high technology and consumer goods remain generally very good, yet a sophisticated and complex market such as Japan requires careful study before a company will find it worthwhile to make substantial commitments. Product lines believed to offer the best prospects for sale in Japan include, in the high technology area, pollution control equipment, data communications and other equipment used in the electronics field. Under consumer goods, leisure time equipment, appa..l and large appliances show especially good prospects.

Japan continues to buy a wide range of agricultural commodities, and the United States remains an important and dependable supplier. In the six-month period ending in March, U.S. agricultural shipments to Japan totaled nearly $1.9 billion, more than double the level in the same period last year. Prices were considerably higher but export volume increased for commodities such as corn and cotton.

U.S. agricultural shipments to Japan are expected to continue at a high rate.

Japanese Program Robots

The use of robots in industry will be the subject of a symposium, exhibition and technical tour in Japan in November.

The 4th International Symposium on Industrial Robots, sponsored by the Japan Society of Biomechanisms and Japan Industrial Robot Association, will be held in Tokyo Nov. 19-21. Coinciding with this occasion, an Industrial Robot Exhibition will be offered in the same city Nov. 18-23.

A technical tour following the symposium is scheduled for Nov. 22-28; participants will be taken on an inspection tour of leading manufacturers, users and research laboratories of industrial robots in Japan.

Swiss Market Looks Good Despite Slumping Economy

Rapid acceleration in demand for Swiss goods and services abroad and near stagnation in public and private spending at home are key features of the current economic scene in Switzerland. They are combined with a record rate of inflation and soaring rises in salaries and wages. Mario R. DeCapua, recently the Commercial Attache at the U.S. Embassy in Bern, nevertheless goes on to offer a number of reasons why U.S. suppliers to Switzerland should do well in spite of the current economic difficulties there.

Only a 2 percent real GNP growth is predicted for 1974. A major factor responsible for this slow rate of expansion is the lack of strong growth in industrial production, a sector which is severely restrained by labor shortage and credit restrictions. Both are to a large degree the result of government measures and Central Bank intervention designed to secure a hold on the runaway inflation. But it must also be acknowledged that Switzerland has in many areas clearly reached the limits of its capacities.

Imports in the first four months of this year rose by 25.9 percent in value but dropped by 9.7 percent in volume. Exports on the other hand showed a real gain. They advanced by 24.9 percent in value and 12 percent in volume.

The massive increase in the price of Middle East crude and higher costs for other raw materials and semi-finished products are chiefly responsible for the substantial value increase of Swiss imports.

The value of Swiss imports from the United States rose by a gratifying 12 percent through the first three months of the current year, to reach $244.4 million. The U.S. market share, however, remained at a low 6.8 percent level, the increase in dollar value having been negated by the overall and faster rise in Swiss imports from a number of other countries. West Germany was again the principal foreign supplier to the Swiss market, providing 28.8 percent of total imports. Second place was occupied by France (13.7 percent), followed by Italy (8.9 percent) and, in fourth position, the United States.

By tradition, the United States has figured among Switzerland's most important suppliers of aircraft, nuclear reactors, computers and computer related equipment, organic chemicals and precious metals. The Swiss also look to the United States as a dependable, and above all innovative source of supply for such items as electric and electronic process control and regulating instruments, health care equipment, scientific and laboratory instruments, water pollution control equipment, food processing and packaging machinery, printing machinery, and materials handling equipment.

American manufacturers interested in selling to the Swiss market should not be discouraged by the fact that the outlook for 1974 is somewhat less bright than usual. For one thing they enjoy a distinct price advantage as a result of the currency realignments, and where capital is in limited supply, as it is in Switzerland, buyers will become even more price conscious.

Though investment in capital goods will slow down, this does not apply in equal measure to all types of equipment nor to every sector of industry. In fact, demand for machinery and instruments which raise productivity and save labor will probably be higher than ever. It is precisely in this area that American suppliers are highly competitive by virtue of their technological

SWISS AIM FOR HIGHER PRODUCTIVITY—*Demand is growing in Switzerland for machinery and instruments which save labor. Above, Kodachrome processing laboratory.*

lead and reputation for quality and sophistication. Moreover, the expected upswing in heavy machinery exports should also generate additional demand for U.S.-made electronic components and electronic systems, since Swiss manufacturers swear by them and prefer to install them in their equipment.

Despite a 7 percent decline in consumer spending so far this year, almost exclusively due to a sharp drop in automobile purchases, consumer goods should definitely prove a field of high sales potentials. For too long they have remained the Cinderella of American export efforts to Switzerland. The market has yet barely been scratched. In the few instances where American manufacturers have bothered to show the flag, rewards have been considerable. It should be remembered that Switzerland is still the country with the second highest per capita income and the highest purchasing power per head in Europe.

Extensive research by DeCapua and the Embassy staff has revealed that prospects in Switzerland for sale of the following American products remain high or are increasing:

Capital Goods: All kinds of environmental protection equipment, but in particular analyzers, detectors, dust monitors and emission measuring instruments, flow measuring devices, effluent and oil removal equipment, filters, separators, sludge dewatering plants, as well as almost every type of solid waste removal equipment and noise control instrumentation; analytical instruments and laboratory equipment; health care equipment including patient monitoring systems, intensive care stations, diagnostic and anesthesia apparatus; industrial process control and regulating instrumentation; complete process control systems combined with process computers; fully automated packaging and food processing machinery; labor saving machinery and devices for hotels, restaurants and institutions; numerically controlled machine tools and advanced inspection, measuring and testing equipment; advanced printing machinery, such as computerized composing systems, video editing terminals, electronic engraving systems for letterpresses and cylinders, and electrostatic printing equipment; industrial chemicals; pharmaceutical preparations; plastic materials; novel packaging materials.

Consumer Goods: Home furnishings and houseware; do-it-yourself and hardware items; garden tools and supplies; swimming pool accessories; camping equipment; sporting goods, especially winter sports articles; toys and games; musical instruments; toiletries and cosmetics; textile products, including bathroom carpets and mats, shower curtains, towels, baby clothing, casual wear for men and women, easy-care garments for adults and children.

Detailed information on the market in Switzerland for many of the items listed above is available to American businessmen on request from the Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230. Such material is in the form of reports and studies which the Embassy has prepared on the Commerce Department's behalf. U.S. exporters may be interested for example in the following market surveys: Chemicals—Switzerland 1973; Industrial Machinery and Equipment—Switzerland 1972; Printing and Graphic Arts; The Market for Environmental Protection Equipment in Switzerland; Metalworking and Metal Parts Finishing Equipment; The Market Potential for American Consumer Goods; Electronic Components Switzerland.

Credit Availability, Delivery Schedules Keys To Continued U.S. Surge In Chile

Chile will be needing more American products in the remainder of 1974 and beyond as it endeavors to rebuild its economy. While major emphasis will be on capital goods to aid in rebuilding, the gradual relaxation of restrictions on imports of consumer goods could mean moderate increases in U.S. exports of various consumer items. Whatever the product, however, credit availability and delivery schedules will be the major factors in increasing sales to Chile, according to Mark E. Grady, Commercial Officer at the U.S. Embassy in Santiago.

A slight rise in 1973 in imports of machinery, spare parts and accessories was the beginning of what is expected to be a substantial increase of imports in this category throughout 1974—an estimated $400-$450 million in imported machinery and equipment out of a total import bill which may exceed $2 billion.

In fact, Chile must import substantial amounts of machinery and equipment over the next several years to rehabilitate its existing capital base as well as for numerous new projects vital to future growth which require large purchases of equipment. Projects include steel manufacturing expansion, petroleum exploration and development, expanding energy generating capacity, an ambitious housing program, and various programs to improve the agricultural sector. In this last category, the Inter-American Development Bank recently granted Chile a $22 million credit for imports of agricultural machinery and other products.

In sum, there are so many projects being scheduled or considered, that one of the Chilean Government's most immediate and diffcult tasks will be to establish priorities for the use of its foreign exchange.

Despite some cash purchases, Chile will essentially be in the market for medium and longer-term credit for most of its needs. Government agencies or corporations will continue as major buyers of imported goods. In 1973, 72 percent of all import registrations were issued to the public sector. In the first quarter of 1974 the six largest importers were state entities, which accounted for 63 percent of the value of import registrations issued during the period. In recent cases the Chilean Central Bank required that the imports be covered by a minimum 5-year credit with interest not exceeding the New York price rate plus 1.5 percent.

In addition to credit, Chile is also facing a problem of delivery schedules, where equipment or raw materials are either not available or cannot be delivered for at least a year. Popular in many government as well as private offices is a sign reading, "Be brief, we are three years behind." Whether the projects are new or old, every organization needs the equipment "yesterday" and there is considerable frustration when they learn of worldwide delays in delivery.

Much of the emphasis in the latter part of 1974 and beyond will be placed on imports of capital goods for Chile's reconstruction. The years of disinvestment and the need for new investment projects will give impetus to this category.

At the same time, and despite a difficult balance of payments situation, Chile has also started to relax restrictions on consumer imports. The 10,000 percent prior deposit requirement has been removed from most imported items and duties are generally being reduced. Various government officials have announced that some consumer goods will be brought in to increase local industry's efficiency and hold down consumer prices. It is expected that this program will be undertaken gradually, but the chance remains for a modest increase this year in U.S. exports of selected consumer goods to Chile.

The outlook, therefore, is for an expanding market in general and an expanding market for U.S. exports in particular. During the first six months of the new Chilean Government (October 73-March 74) the United States received $274 million out of $1056 million in import registrations, or 26 percent (the U.S. share of Chile's import market had dropped from approximately 38 percent in 1970 to 17-18 percent in 1973). If the 26 percent market share can be maintained for the year, U.S. exporters could look forward to annual sales of up to $500 million.

A general preference for U.S. products based on familiarity and the government's wish to reestablish traditional trade sources will help U.S. exporters to attain that goal, but credit availability and the ability to deliver goods at least as fast as competitors will be the most decisive factors.

Pakistan Back On Development Track, Needs Suppliers For Major Projects

The Islamic Republic of Pakistan, demoralized after war with India in 1971 and the subsequent loss of the eastern half of the nation (now the country of Bangladesh), has made significant progress on both the political and economic fronts since the accession to power in early 1972 of the Pakistan Peoples Party, led by Prime Minister Zulfiqar Ali Bhutto. The outlook for increasing economic development is bright, adds Commercial Officer L. Stuart Allan in a report from the American Consulate in Karachi. After discussing some of Pakistan's recent political and economic gains, Allan goes on to pinpoint three major projects that offer particularly good opportunities for U.S. exporters.

Under Bhutto's able leadership, peace with honor, culminating in Pakistan's recognition of Bangladesh and the subsequent repatriation of all Pakistan POWs held by India, has been achieved. An agreement regarding rescheduling of Pakistan's foreign debt load is expected to be completed in the near future, thereby solving one of Pakistan's most pressing economic problems.

High prices in international markets for cotton textiles and rice and the successful shifting of trade from the former East Wing to new importers provided a welcome boost to Pakistan's export earnings. Although domestic private investment has not been as vigorous as originally hoped, a pragmatic policy of channeling investment into the public sector has been instituted.

State-owned holding corporations have been established to oversee management and development of several key manufacturing sectors. In addition, experienced professional bankers have been put in charge of the domestic banks which were nationalized on Jan. 1, and the efficiency of their operations maintained with some redirection of policy to favor small investors.

Three priority undertakings

One aspect of Pakistan's future economic development which holds promise for expanded American exports is the increasing flow of development assistance which is being granted Pakistan by multilateral institutions to finance important development projects. At present three major projects offer excellent prospects for significant cash sales by American suppliers. The three projects are all considered to be top priority by the Pakistani Government and two have already received final loan commitments from international institutions. The third project is expected to have finalized a source of financing within a year.

Indus Right Bank Pipeline Project: The most immediate of these major projects, this is a 300-mile-long gas transmission line which will carry natural gas from the major Sui Fields in Baluchistan to the industrial port city of Karachi. The 18-inch pipeline is considered a basic necessity for continued development and economic health of the city of Karachi and lower Sind Province. The total cost is estimated at $75 million, of which some $60 million will be the foreign exchange component.

The project has been divided into two phases: Phase I, a 40-mile segment, will extend from Karachi to the Sari gas fields to the northeast. Procurement of pipe and construction equipment for Phase I has already been completed. Of greater interest to American suppliers is the 260-mile Phase II segment which will extend from the Sari gas field along the right bank of the Indus River to the Sui Gas fields in Baluchistan.

Major items to be imported offer American suppliers excellent chances for substantial cash sales and include 260 miles of 18-inch high pressure steel line pipe (estimated cost in excess of $42 million), pipeline coat and wrap materials (in excess of $1.2 million), bore and plug valves, flanges and miscellaneous fittings ($1.5 million), heavy and light construction and transport machinery and equipment to be used in building the pipeline ($5 million) and a turnkey telecommunications system ($1 million).

Based on the results of the procurement for Phase I of the project and his knowledge of the competitive position of the various American products, Allan predicts that American suppliers can land contracts for the major part of the construction machinery, valves and fittings and telecommunications systems. Due to the general shortage of steel in the United States, the chance of American suppliers winning the bid on pipe appears less likely. Overall, however, this project offers excellent prospects for American exports to Pakistan.

"Pak-Arab" Fertilizer Project at Multan: Rich in natural gas resources and basically an agricultural country, Pakistan has both the need for and the raw materials necessary to manufacture fertilizer. Three major fertilizer firms already exist in Pakistan. One of these, the National Fertilizer Corp. (formerly the fertilizer division of the West Pakistan Industrial Development Corp.) will set up a second major plant beside its present plant at Multan. The project will include a 910-metric ton per day (MTPD) ammonia plant, two 600-MTPD nitric acid plants, one 1015-MTPD prilled nitro phosphate plant incorporating calcium nitrate conversion, one 1500-MTPD prilled ammonium nitrate plant, and offsite facilities for steam and power generation, water treatment and cooling, product handling and storage.

Keen competition occurred in 1973 between major engineering and design firms to obtain contracts for expansion of the project. Winners of the competition were Kellogg International Corp., which was awarded the engineering and procurement contract for the ammonia plant, offsites and utilities, and Friedrich Uhde GMBH of

PAKISTANIS ARE THINKING BIG —*Major project needs will be opening up large and varied sales opportunities for U.S. exporters. Above, the Mangla Dam, part of the Indus Basin Scheme.*

Germany, awarded an engineering and procurement contract for the nitric acid, nitro phosphate and calcium ammonium nitrate plants.

Total cost of this expansion project is projected at approximately $100 million. Of this, approximately $75 million will be the foreign exchange cost. Financing for the foreign exchange component is being provided by a $27 million loan from the Asian Development Bank, $35 million from the World Bank and approximately $12 million provided as equity by the Abu Dhabi National Oil Co., which will obtain 30 percent of the share capital of the new firm. The new plant will be called Pak-Arab Fertilizers Ltd., and the Pakistani share will be owned by the National Fertilizer Corp.

This project is one of the first joint ventures between Pakistan and its wealthy Arab neighbors and, if successful, may lead to other more ambitious projects. Several have already been mentioned, including an oil refinery and textile mills.

Procurement for and construction of the Pak-Arab Fertilizer Plant is expected to move speedily ahead and American suppliers should be in excellent position to provide a large part of the required equipment.

Port Qasim Project: Construction of Pakistan's long awaited integrated steel mill has finally begun at Pipri, a few miles east of Karachi. This mill, which is being constructed with assistance from the Soviet Union, will utilize imported iron ore and coal as raw materials. The need for importing raw materials necessitates construction of a new deep water port to be located at Phitti Creek near the site of the new steel mill. Although still only in the design stage, the port is considered a high priority project by the Government of Pakistan since, without it, the steel mill will not be able to operate. Limited steel production is projected for late 1977 and this necessitates construction of minimum berthing facilities at Port Qasim on a crash basis.

Port Qasim planners predict that international calls for tenders will be issued in early or mid-1975, with procurement and construction to begin shortly thereafter. The most likely lending institutions appear to be the Asian Development Bank or the World Bank. American suppliers of goods and services should be in strong competitive position to bid on these important tenders.

In order to compete effectively on the various international tenders, as well as to keep abreast of market developments in Pakistan, American suppliers would be well advised to appoint competent, technically qualified local representatives. Such representatives should maintain frequent contact with the organizations which purchase the various major items and report market developments to their American principals.

Close Look at Bangladesh Economy Reveals Opportunities Among Problems

Notwithstanding Bangladesh's serious economic problems and tight foreign exchange position, significant opportunities for aggressive U.S. suppliers of goods and services are to be found in this poor, underdeveloped and overpopulated country. In his report from the U.S. Embassy in Dacca, Commercial Officer Jay P. Freres outlines the framework for trade with Bangladesh and identifies some of the areas of greatest potential for U.S. suppliers.

The Bangladesh Government remains committed to socialism and has concentrated almost all import trade in state-owned mechanisms, especially the Trading Corporation of Bangladesh (TCB). Recently, however, in response to widespread local criticism of the TCB, the government decentralized some of the import trade by authorizing certain public sector entities to import approved items directly. The private sector is still allowed only a very limited scope for importing. Thus, many would-be importers seek to represent foreign suppliers as indent (commission) agents.

The government sets import policies and foreign exchange allocations on the basis of six-month shipping periods. For the January-June 1974 period, the government has allocated the highest amount of foreign exchange for non-food imports ever, mainly to finance sorely needed industrial raw materials and spares. Unfortunately, the government later felt constrained, largely because of sharply rising world prices and commodity scarcities, to divert much of these foreign exchange allocations to finance essential food, fuel and fertilizer imports.

Plan is being revised

The economy is stagnant with scarcely any large-scale private or public investment undertaken since liberation in 1971. Moreover, Bangladesh has not been spared the worldwide inflationary spiral and has suffered a drastic decline in foreign exchange reserves in the past year or so, down from $250 million in early 1973 to less than $100 million a year later. These and other factors have forced the nation's planners to try to recast the First Five-Year Plan, which had been published in late 1973. It is not yet known what priority will be given to various projects in the revised Plan, but it is likely that emphasis will be given during the Plan's first years to agricultural development projects, including irrigation and flood control, and the fertilizer component of a proposed petrochemical complex.

Other likely priority targets are power transmission, transportation, communications, and housing projects and increased steel and leather production.

U.S. firms face intense competition in the Bangladesh market, especially in the afore-mentioned development target areas, from Japanese, German and British firms who either have personnel on the spot or have aggressive local representatives to advance their interests. American firms are strongly encouraged to appoint reliable agents to represent them in Bangladesh, and to support these representatives with regular communication and frequent visits to the country.

Sources of financing

Even though much of Bangladesh's trade is now covered under barter agreements or is financed by tied foreign credits, there are sources of financing available to cover many imports from the United States. In addition to Bangladesh's own foreign exchange earnings, largely from jute where a seller's market now obtains, there are lines of credit from the World Bank, particularly IDA program loans, and from the Asian Development Bank. The International Monetary Fund is assisting Bangladesh to handle its balance of payments difficulties. There are also some untied foreign-government and banker credits available.

Though there appears no prospect of an AID commodity loan, some U.S. assistance goes into local-currency financing of projects, which, as drawn down in Bangladesh, releases the AID dollar input for utilization by the government for imports or other purposes.

One American supplier was reportedly able to persuade the Bangladesh Government recently to enter into a long-term purchase contract for an agricultural input currently scarce in world markets. It took educative salesmanship to swing the deal, but once the government became convinced it had to act in its own longer range interest, it was able to come up with the necessary financing. The government is also experimenting with private barter agreements to acquire commodities such as pesticides, pharmaceuticals and even food grains.

American products continue to enjoy a generally good reputation in local markets. Items of greatest potential for U.S. suppliers include: food grains, edible oil, ferrous scrap, iron and steel billets, corrugated iron sheets, zinc, sulphur, tallow, fertilizers, pesticides, raw cotton, cotton yarn, pharmaceuticals (raw and finished), dried and condensed milk products, industrial spare parts and chemicals, earthmoving equipment, tugs, barges, marine engines, dredgers, tires and tubes, razor blades, photographic film and chemicals, electronic gear for airports, communications and tubewell-drilling equipment.

Kenya Expects Big Payments Deficit, But The Economy Continues To Grow

Kenya's gross domestic product topped the two billion dollar mark in 1973. Growth of manufacturing led the way and this sector became, after government, the second largest in the monetary economy, surpassing agriculture for the first time. Manufacturing is expected by the U.S. Embassy in Nairobi to continue growing faster than the economy as a whole through 1974 and will offer good sales opportunities for U.S. manufacturers of capital goods and industrial raw materials.

As is the case with most small, developing countries, Kenya is very much at the mercy of international economic forces over which it has little or no control. The Kenyan economy, particularly the growing manufacturing sector, is dependent on imported capital goods and raw materials to aid increased production and economic development in general. Kenya has no choice but to pay the inflated market prices for these products or forego the benefits of economic growth.

Possible price squeeze

Kenya was able to pay for these imports in 1973 because the prices of its commodity exports were swept along with increasing prices for most internationally-traded products. There is now some indication that world prices for many agricultural commodities and foodstuffs are likely to stabilize or even fall in coming months while prices of manufactured goods, which Kenya must import, are increasing at a faster rate than was experienced in 1973, especially as the effects of higher oil prices work through the world economy. This should produce a very large balance of payments deficit for the year.

If, as it hopes, the Kenyan Government can avoid excessive restrictions on imports and needed raw materials can be obtained, manufacturing should have another excellent year in 1974; real growth in production should be about 10 percent. Drought conditions which prevailed in much of Kenya in late 1973 and early 1974 will limit the growth of agricultural production and only a small increase in real output can be expected. Kenya's two most important export crops—coffee and tea—are expected to drop in production. This drop should be offset, however, by expected increases in sisal, pineapples, sugar, and livestock.

Wishing to take some inflationary pressure out of the economy, the government announced in June a 1 percent increase in the "prime rate" of interest to 8 percent, a restriction on the growth of bank credit to the private sector of 12 percent over the next year, and new tax measures, chiefly higher corporate income tax rates and higher levies on luxury goods and petroleum products, which would absorb an estimated $32 million during the fiscal year.

These restrictive measures were more than offset, however, by an 18 percent increase in total government spending during the 1974/75 fiscal year, which is expected to produce a $44 million budget deficit. Spending on development will increase by over a third to almost $250 million, while the 11 percent increase in the recurrent account to $527 million represents no real increase when adjustment is made for price changes.

Taken together, the increase in production of the manufacturing sector, the increase in government spending, the relative stagnation of the agricultural and tourism sectors, and the combined changes in smaller sectors are expected, according to Kenyan Government estimates, to produce an increase in the gross domestic product of 10 to 11 percent in current prices in 1974. Adjusting for the expected rate of inflation, this increase would yield an overall growth of 5 percent in real terms.

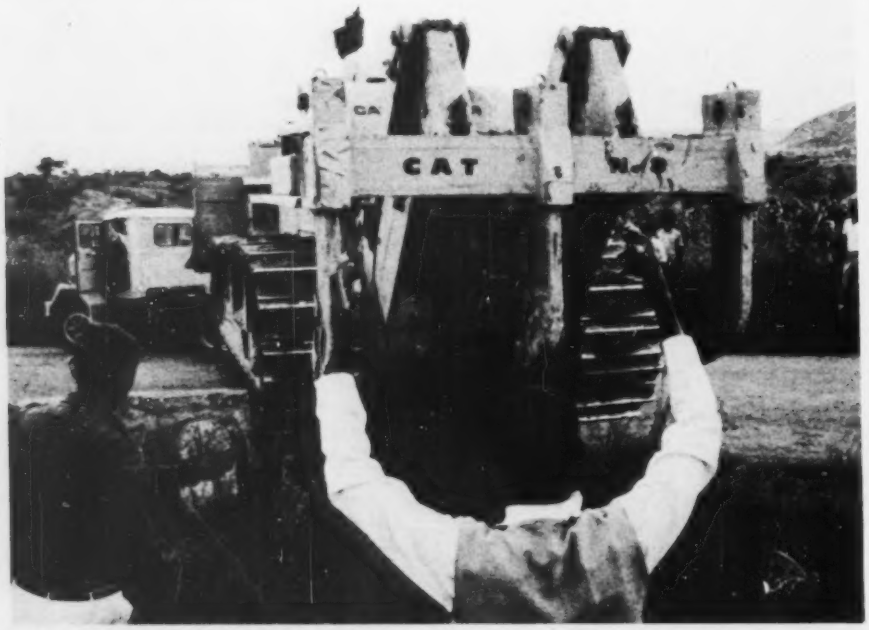
Wheat inflates import figures

Kenya increased its imports from the United States by 40 percent in 1973 to almost $47 million. Most of the $13 million increase from the year before was due to $10 million in wheat sales necessitated by a sharp drop in Kenya's domestic wheat production. Because of the near drought conditions that prevailed in much of Kenya in late 1973 and early 1974, wheat imports are again required this year.

Also, the United States sells large quantities of chemicals and production machinery used by Kenya's growing industrial sector. Total sales of chemicals were almost $8 million in 1973 and sales of capital goods totaled almost $16 million. Given the Kenyan Government's policy of avoiding restrictions on the importation of raw materials and capital goods needed by local industry, U.S. sales, which are concentrated in these categories, should not be greatly affected if general import restraints become necessary to conserve foreign exchange. On the contrary, the rapid growth expected in the industrial sector should create even greater opportunities for American manufacturers.

In addition to traditional U.S. exports to Kenya, good opportunities exist for plastic resins, synthetic fibers, medicines and medical equipment, materials handling equipment, electric power generating and distributing equipment, textile machinery, hotel and restaurant equipment, and food processing equipment.

The increasing scarcity of foreign exchange locally and the tightening of domestic credit means that many import orders will have to be canceled unless external credit is available. U.S. manufacturers have several sources for financing exports to Kenya. The U.S. Export-Import Bank has loaned only $12.5 million to finance ex-



BIG 'CAT' HELPS KENYANS BUILD ROADS—*Kenya is facing some balance of payments problems, but U.S. exporters can get help from several sources in financing shipments there.*

ports to Kenya; Exim is encouraging more U.S. companies to use its concessionary export financing.

Several private U.S. banks have recently established branches or representative offices in Nairobi and can provide trade financing as well as on-the-spot knowledge of the Kenyan market. These are Continental Bank, First National Bank of Chicago, First National City Bank of New York, and Manufacturers Hanover. In addition, Bank of America and Chase Manhattan have representation in Kenya through partially-owned subsidiaries.

The U.S. Embassy in Nairobi estimates that direct U.S. investment in Kenya now exceeds $100 million; it continues to increase. Kenyan Government policies strongly encourage private foreign investment and Kenya's political stability, favorable climate and location, and comparatively viable domestic market have created a good climate for U.S. investment. The June increases in corporate income tax (from 40 percent to 45 percent), in income tax on branches of foreign companies (from 47.5 percent to 52.5 percent), and in tax on dividends (from 12.5 percent to 15 percent) as well as restrictions on use of domestic credit facilities could make direct investment in Kenya marginally less attractive to some U.S. companies, but should not greatly diminish the success American investors have had to date in Kenya.

Repeating the welcome

The 1974-1978 Development Plan repeats the welcome that the Kenyan Government has traditionally given to foreign investments and identifies several major projects in which U.S. companies could participate in joint ventures with local interests—100 percent foreign-owned operations are unlikely to obtain Kenyan Government approval—or could provide capital equipment through direct sales.

In seeking foreign investment, the Kenyan Government places greater emphasis on the technology, skills, and techniques acquired than on the immediate inflow of capital. Investment in industries which have potential for exports will be given priority over import substitution industries which need tariff protection to survive. To promote exports, the Kenyan Government has instituted incentives which include a rebate of the 10 percent sales tax paid on intermediate products when the final product is exported plus a 10 percent export subsidy.

These innovations and others signify the passage of the Kenyan economy from the initial stage of development when foreign investors could demand and obtain a protected local market with assured profitability to a more advanced stage which involves greater risk but also greater opportunity. This is an atmosphere in which U.S. companies have always thrived; they will continue to be successful if they are willing to play by the new rules.

Taiwan Moves On Major Projects; Capital-Intensive Investments Sought

Prospects for increased U.S. exports to the Republic of China are good, reports Commercial Attache Robert T. Wallace from the U.S. Embassy in Taipei.

The government is succeeding in efforts to reduce the imbalance in trade with the United States (US $725 million in 1973). In certain instances Taiwan continues to source imports from the United States alone, or from the United States and Europe, thus decreasing its dependence on Japan as a supplier. However, in an effort to reduce the cost of imports (to help fight inflation), the government decided in November 1973 to permit purchases from any source other than Communist countries. The primary obstacle to increasing imports from the United States is no longer price but the inability of American firms to deliver on orders within a realistic time frame.

Despite the tremendous jump in costs of raw materials and equipment and domestic inflationary pressures, the government has announced its intention to push ahead with nine major infrastructure and basic industrial projects costing several billion dollars over the next few years. Projects include completion of the North-South Freeway; Taichung Port development; a new international airport at Taoyuan; railway electrification; extension of the railway from Suao to Hualien; construction of a 1.5 million metric ton-per-year integrated steel mill at Kaohsiung; development of a petrochemical complex in the Kaohsiung-Ping-tung area; construction of a new port at Suao; erection of a major shipyard at Kaohsiung; and development of nuclear power generation.

All of these projects offer sales potential for equipment and design and engineering services for U.S. firms. In fact, a number of U.S. firms are already deeply involved in several.

There also are good prospects for U.S. participation in several local government projects, i.e., sewage and water treatment plants; and in the private sector, i.e., hotels, new industrial plants, etc.

United States Steel Engineering is providing overall engineering and consultancy services for the steel mill and negotiations are under way with U.S. firms for the plate, rod and bar mills. U.S. companies are constructing two nuclear power facilities, and will build an additional two and possibly four more; electrification of the railway will have extensive U.S. involvement.

In the petrochemical industry, one U.S. firm already has contracts worth approximately $65 million with prospects for an additional $65 million. Other downstream petrochemical projects are earmarked for U.S. firms, either in joint ventures or design and engineering, and supplying equipment.

The following would appear to offer the best potential for sale of U.S. goods and equipment: steel mill equipment and materiel, including scrap steel; agricultural products such as wheat and other grains,

BADGER GETS TAIWAN CONTRACT—*P. Y. Chang, chairman of the board, Delta Petrochemical Corp., Taiwan, signs a contract awarding engineering and construction of a 100,000-metric-ton per year styrene monomer plant to the Badger Co., Inc. The new plant will be Taiwan's first styrene unit. Looking on (from left) are R. E. Siegfried, president of Badger; E. H. Martel, president, China Badger Co.; and S. Paul Li, Sundridge Enterprises, Ltd.*

soybeans and cotton; construction and road-building equipment (Taiwan's largest construction firm estimates it will require around $40 million worth of construction equipment over the next couple of years—much of this is required in 1974); telecommunications equipment; materials handling equipment; plastic and chemical raw materials; pumps; textile machinery; machine tools; and electronics equipment and components.

While price is no longer the overriding factor, U.S. firms, in order to secure orders, must still be competitive and employ the same aggressiveness in pursuing trade opportunities abroad that they use at home.

Trade Center will help

A new U.S. Trade Center in Taipei was dedicated in March and commenced holding regular exhibitions of American products in May. Various exhibitions to be held in the Trade Center should develop many new trade opportunities for U.S. firms and make a major contribution toward increasing exports to Taiwan. Upcoming exhibitions will feature metalworking equipment and machine tools, power generation and transmission equipment, and computers and related equipment.

In spring 1975 a second In-Store Promotion of U.S. products will be held at the new Tah-shing Department Store in Kaohsiung, and several other department stores have expressed interest in similar promotions.

The investment climate in the Republic of China remains favorable. However, there have been several recent developments which are a cause of concern to U.S. investors and potential investors. With the rapid rise in the cost of labor and a gradual tightening of labor supply (there is an actual shortage of some skilled categories such as construction workers), Taiwan can no longer be considered as a prime location for labor-intensive industries. Particularly before the implementation of substantial wage increases, many U.S. electronics firms suffered from shortages of labor. In part, shortages can be attributed to the rapid expansion of the industry and the type of worker desired (mainly young girls).

The Chinese Government is no longer encouraging investments by labor-intensive industries, except on a very selective basis. Instead, it is seeking foreign investment in relatively capital-intensive industries and those which will introduce more sophisticated technology into the country. Efforts also are being made to induce a potential investor to locate in areas other than Taipei and Kaohsiung where most industrial establishments are concentrated.

Another cause of concern to the foreign investor, as well as Chinese businessmen, were sweeping economic stabilization measures announced by the government in January. These measures were aimed at controlling severe inflation and covering the steep hike in the cost of petroleum and other imports. Interest rates were raised. Prices of gasoline, fuel oil and electric power were nearly doubled. Wages for armed forces and government employees were increased the equivalent of 18 percent. This caused demands for similar or greater increases by employees in the private sector.

The deflationary measures taken in January have been effective, however, in holding the price-wage spiral in check. In July, commodity prices continued the downward trend which began in March. Wholesale prices have fallen 7 percent since peaking in February.

Despite the problems mentioned above, interest in investing in Taiwan remains relatively high because of its well-educated, dexterous, and hardworking workforce; its good infrastructure; and the receptive attitude of the government. Some $94.6 million in foreign investment projects were approved by the government in the first six months of this year, up 11 percent over the same period last year. Domestic investment was up 70 percent over the first half of 1973. There are prospective U.S. investments in the automotive industry, petrochemicals, electronics, hotels, chemicals, glassware, sponge iron, materials handling and others.

Canada Labeling Act Can Affect Imports

American manufacturers are being alerted to a proposed change in the Canadian Government's Consumer Packaging and Labeling Act that could prohibit imports of many U.S. products into Canada.

The proposed regulations are contained in three schedules dealing with appellations of origin, quasi-generic names and indications of provenance which were published in the July 27 edition of *Canada Gazette* (Part I).

Major items include wines, cheeses, beers, liqueurs and tobacco products plus a smattering of other consumer items. Many American products bearing names of foreign origin such as Chianti and Rhine wines or Muenster cheese, will be prohibited entry when these regulations take effect.

Interested parties, including foreign producers, have until Sept. 27 to submit comments or suggestions to the Assistant Deputy Minister (Consumer Affairs), Department of Consumer and Corporate Affairs, Place du Portage, Ottawa/Hull, Canada K1A 0C9.

US. manufacturers may obtain additional information about the Canadian proposal from the Office of International Marketing, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230, telephone 202-967-3355.

Jordan Revises Rules On Agents, Distributors

Jordan has published a law which regulates commercial agents, intermediaries and distributors.

The following provisions of this new law may be of interest to US. exporters:

- Foreign firms and individuals may be represented in Jordan only by a duly registered agent. A commercial representative must be a national and permanent resident of Jordan with a place of business there. Corporate representatives must be organized under Jordanian law and have a majority of Jordanian stockholders, directors and/or management.
- An agent or distributor may represent more than one foreign principal. However, the converse is not true, and a foreign firm cannot be represented by more than one agent. This in effect makes every agent an exclusive agent.
- The representational agreement may be terminated when: (1) its term expires according to the contract, (2) the principal exercises the right based on a just cause, or (3) the authorities revoke it. The principal is liable to compensate his agent for damages, if the principal terminates the agreement prior to its expiration date without just cause. Such damages will include the projected profits that the agent would have earned had the contract not been cancelled before the end of its term.
- Since the courts of the country where the agent or distributor is registered and works are given jurisdiction over disputes arising from the representational agreement, almost all matters affecting Jordanian agents will require resolution in Jordanian Courts.

An unofficial translation of this Jordanian *Commercial Agents and Intermediaries Law, 1974* (Law No. 20, published in the Official Gazette of May 1, superseding Law 29 of 1968) is available upon request from Foreign Business Practices Division, Office of International Finance and Investment, International Economic Policy and Research, Department of Commerce, Washington, D.C. 20230.

Venezuela Passes Laws On Consumer Protection

Venezuela has passed a law giving the Ministry of Development authority to fix prices, and to prohibit creation of artificial shortages, influence peddling, and price speculation.

A Consumer Protection Superintendency will supervise the law, and the Central Bank will set the interest rates for consumer credit. Imports will be affected, too, as the law requires warranties on durable goods, and stipulates that the warranties, instructions, and use and application information must be in Spanish.

Swiss Subsidiaries and Affiliates in U.S.A. Published by the American Chamber of Commerce in Switzerland. 43pp. SF200 or US$70.

Identifies the 182 U.S. branches of 136 Swiss firms, alphabetically by name of Swiss parent and of U.S. affiliate or subsidiary, and by SIC number.

The Chamber also publishes, as part of its annual Membership Directory, a list of the subsidiaries and affiliates of American firms in Switzerland. The Directory is available at a cost of SF75 or US$25.

Write: American Chamber of Commerce in Switzerland, Talacker 50, 8001 Zurich.

Summary of the Hearings Before the Group of Eminent Persons to Study the Impact of Multinational Corporations on Development and on International Relations, Sales No. E.74.II.A.9, $18. The Impact of Multinational Corporations on Development and on International Relations, Sales No. E.74.II.A.5, $10. Both published by the United Nations.

This Group, appointed by the Secretary-General under a Council resolution adopted in July 1972, began its work in September last year and completed it in April, at sessions in New York and Geneva. During these sessions the Group held public hearings where it heard testimony and answers to questions from some 50 leading personalities from governments, business, trade unions, special and public interest groups and universities.

The report of the Group (also listed above), which was made public in June, recommends, among other things, establishment of a Research and Information Center, and a permanent Commission on Multinational Corporations under the Economic and Social Council.

Write: Sales Section, United Nations, New York, N.Y.

International Withholding Tax Treaty Guide of Foreign Tax and Trade Briefs. By Walter Diamond. $35, including quarterly revisions.

Provides information on all international withholding tax rates for interest paid on foreign loans and securities, dividends, bank deposit interest, royalties, film royalties, technical fees, shipping and aircraft income, rentals and leasing for 104 countries.

Write: Matthew Bender & Co., Inc., 235 East 45th St., New York, N.Y. 10017.

Economic Handbook of the Machine Tool Industry, 1974-75. Published by the National Machine Tool Builders' Association. 230 pp. $10.

A compilation of current and historical facts and figures about the U.S. machine tool industry and the world trade in machine tools. Includes charts, data tables and introduction for each of its eight chapters.

Write: National Machine Tool Builders' Association, 7901 Westpark Dr., McLean, Va. 22101.

Calendar For World Traders

Sept. 18—Indianapolis—Seminar on Trade With Russia, World Trade Center at Indianapolis. Speakers will include Albert Planagan of Commerce's Bureau of East-West Trade.

Sept. 18—New York—International Executives Assn. meeting on business opportunities in the Near East: Oil Revenues and New Development Programs—What They Can Mean for the U.S. Exporter. Commerce's John T. Haldane will speak.

Sept. 18—New York—International Executives Assn. will present first of a series of seminars on A Comprehensive Approach to International Trade.

Sept. 19—Chicago—Fall luncheon meeting of the International Trade Club of Chicago, La Salle Hotel. H. M. Connelly, president of Kraftco Int., will discuss What Price Multinationalism?

Sept. 19—Atlanta—Conference on New Profit Opportunities in the Republic of China for Southeastern Businessmen, Fairmont Colony Square Hotel. Sponsor: Consulate General of Republic of China and Atlanta Chamber of Commerce.

Sept. 19-Oct. 17—Cleveland—Five-Session International Trade Workshop sponsored by Cleveland World Trade Association. Sessions will cover: Terms of Sale, Quotation; Basic Export Banking & Financing; Documentation; Packaging & Insurance; Selecting Transportation.

Sept. 23-24—New York—Advanced Management Research Int'l session. Commerce's David Westley will speak on Commerce's new Near East Study.

Sept. 24-25—Nashville — Asian Businessmen Seminar, Belmont College. Sponsors: Belmont College, Tennessee Department of Economic & Community Development.

Sept. 25-Nov. 13—Atlanta—Georgia Export Conference, Urban Life Center, Georgia State Univ. (on successive Wednesday evenings).

Sept. 26—Knoxville—Asian Businessmen Seminar. Sponsors: Belmont College, Tennessee Department of Economic & Community Development, Knoxville Chamber of Commerce.

Sept. 27—Chattanooga—Asian Businessmen Seminar. Sponsors: Belmont College, Tennessee Department of Economic & Community Development, World Trade Council of Chattanooga.

Oct. 1, 8, 15, 22, 29 — Minneapolis — "Around the World" tour of new markets for Minnesota products, Federal Courts Bldg. Each session will include an economic briefing, market forecast, review of business practices and summary of import regulations and documents. Sponsors: Minneapolis District Office, Minnesota Department of Economic Development.

Oct. 3—New York—Beginning of Fall Term of International Study and Research Institute, Inc. Program of studies includes luncheon seminars on international business issues, a series of special reports on specific problems and conditions in various countries and areas, and special programs developed in response to requests from business and educational organizations. Some sample sessions: Oct. 3, luncheon session on Changing U.S.-European Relations, Harvard Club; Oct. 10, briefing on Technology and World Trade; Oct. 31, briefing on Yugoslavia's New Constitution—Impact on Trade and Investment.

Oct. 10—Reston, Va.—26th Annual Virginia Conference on World Trade. Commerce's Thomas Moore will be part of panel on Exporting to the Far East.

Oct. 17—Rochester—Seminar on East-West Trade. Sponsors: New York District Office, New York State Department of Commerce, Rochester World Trade Group. Speakers will include Lewis W. Bowden of Commerce's Bureau of East-West Trade.

Oct. 21—New York—American Management Assn. briefing. Commerce's Thomas Moore will speak on U.S. Policy and Business in Southeast Asia.

Oct. 22—New York—World Trade Institute meeting. Assistant Secretary of Commerce Tilton H. Dobbin will speak on Business Opportunities in Near East.

Oct. 23—New York—American Management Assn. meeting on business opportunities in the Far East. Speakers will include Commerce's Ann P. Brosnan and Irvin W. Lloyd.

Oct. 24-25—Los Angeles—Meeting sponsored by Pepperdine Univ. Center for International Business and Los Angeles World Trade Center. Lewis W. Bowden of Commerce's Bureau of East-West Trade will speak on U.S. Position Towards U.S.-Soviet Siberian Trade.

Oct. 28-Nov. 1—New York—American Management Assn. course on Fundamentals of International Business.

Oct. 29—Kansas City — Second Annual Missouri Conference on World Trade, Alameda Plaza Hotel. Opportunities in the Near East will be featured. Sponsors: Kansas City District Office, International Trade Club of Greater Kansas City.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

Licensing, Investment Abroad

2086—GUINEA—Government is seeking an arrangement with a U.S. manufacturer of **cola, quinine and others flavors of soft drinks** for operation of a soft drink plant. Factory has been built by Belgians and reportedly is in good condition. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74564. OPIC.

2099—PHILIPPINES—U.S. firm is sought as joint venture partner to **process seaweed into gelatin.** Seaweed culture recently has become well developed in the Zamboanaa and Sulu Archipelago areas. Exports of dried seaweed are estimated at 1,500 tons monthly. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74565. OPIC.

2451—ARGENTINA—Manufacturer of **mobile homes** used for camping trips, mobile living quarters, and temporary villages at exploration and construction sites, seeks joint venture arrangement with U.S. firms manufacturing similar items. Firm owns 1,500 sq. m. of covered space which can be increased to 7,000 sq. m. Interested companies are asked to contact Alberto Ramos y Asociados S.A., Belgrano 2128, Avellaneda, Provincia de Buenos Aires, Argentina. WTDR. P-94570.

2522, 2542—SWITZERLAND — Highly reputable manufacturer and designer of industrial and commercial materials handling equipment and complete systems for permanent installation in large facilities is in process of diversifying its activities. Company seeks licenses for manufacture of **semi- and automatically controlled warehousing systems, including mobile racks, lifting devices and related controls for industrial applications, large filing facilities, archives, for storage of documents, correspondence, etc.** System should also include **automatic filing and file finding devices and require a minimum of personnel; moveable or adjustable wall partitions systems** (hydraulically operated with push button control) **for installation in conference facilities, hotels, theaters,** etc., including ramps, lifting platforms, scenes. Firm is located in well equipped, modern facilities. Its sales and servicing organization is capable of covering most European countries. For further information write: R. Stegmann, Dytan, Stahlund Maschinenbau AG, 6048 Horw, Switzerland. P-74566.

2721, 2731—UNITED KINGDOM—Recently established company is seeking licensing arrangements with U.S. publishers of **books, pamphlets, periodicals on sports.** Publications about winter and water sports, skiing, mountaineering, camping, boating and hang gliding are of particular interest. Firm has two centers which retail an extensive range of tents, trailers, picnic and camping equipment and accessories. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74567.

2834—GERMANY — Firm seeks licensing arrangement for manufacture of **pharmaceuticals** with special emphasis on patented substances. Company, which sells about one-third of its current production abroad, was established in 1898. Has 530 employees and annual sales volume of more than $20 million. Johann A. Wuelfing-Bauer & Cie., 404 Neuss/Rheim, Stresemannstr. 6, Germany. P-74573.

2891—SWEDEN—Seeks to manufacture and/or market in Europe under licenses or joint venture **new products in the adhesive field.** Of particular interest: fast setting, heat resistant and 100 percent adhesives for hot melts; also, powder adhesives which can be electrostatically sprayed, adhesives which can be combined with screw or riveted joints and dual component adhesive systems. Swedish Trade Commissioner, 20830 Rutland Drive, Southfield, Mich. 48075. Telephone 313-354-9333. P-74562.

2891—UNITED KINGDOM — Firm seeks licensing arrangement for manufacture and distribution in the United Kingdom and, if agreeable, within the European Economic Community, of **various types of adhesives.** Company presently manufactures pressure sensitive adhesives, PVC pipe-jointing cements, aqueous adhesives for aluminum foil, roofing membrane adhesives, emulsion adhesives and a range of solvent based adhesives. Firm is a private limited liability company with nominal capital of $120,000. Established in 1961, has 54 employees, 4 salesmen, and an annual sales volume of $3,240,000. Brian J. Wardle, Managing Director, Industrial Adhesives, Ltd., Moor Road, Chesham, Bucks HP5 1SB, England. P-74571.

3299—SAUDI ARABIA — Leading Kuwaiti businessman seeks contact with U.S. firms to establish joint venture **factory to produce sand-lime brick and cement products** in Saudi Arabia. Proposes that U.S. partner take from 10 to 25 percent equity in the project. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74572.

3541—UNITED KINGDOM — Producer of **machine tools** seeks license to make related products such as small attachments. The British firm manufactures heavy duty milling machines, surface grinders and tool and cutter grinders. Company plans to double size of its operations during next two years. It employs 150. R. C. Stevens, Sales Manager, Elliott Machine Tools, Ltd., Padholme Road, Peterborough PE1 5XS, England. P-74569. Copies of firm's product brochures available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

3551—THE NETHERLANDS — Producer of meat processing and preparation machinery seeks licenses to **make food packing and packaging equipment.** Firm's interests include production of **meat and poultry packaging machinery and fruit and vegetable wrapping, filling and sealing equipment.** Company employs 35 and markets throughout Benelux countries. It also has good contacts spread over Europe; is a young and aggressive concern. Robert de Groot, Manager, Machinefabriek Oude Egberink B.V., Schelmaatstraat 14, Oldenzaal, the Netherlands. P-74568.

3559—SWEDEN — Seeks licenses or similar agreements for **processes and equipment within the waste treatment field.** Particularly interested in processes used in recovery of and recirculation of raw materials and chemicals and conversion of waste to useful products. Would be used in metal working and food industries. Firm is not interested in machinery utilized in community waste treatment activities. For further information contact the Swedish Trade Commissioner, 20830 Rutland Drive, Southfield, Mich. 48075. Telephone 313-354-9333. P-74563.

3559—UNITED KINGDOM — Manufacturer of machinery for automotive tire industry wants to expand. Seeks license or joint venture to produce equipment for **petrochemical industry such as pumps, valves and compressors.** Firm is prepared to manufacture, sell and service a suitable product. Has a subsidiary with an alloy steel foundry and production facilities with 81,000 sq. ft. Employs about 500. J. Goodwin, Chairman & Managing Director, R. Goodwin & Sons (Engineers) Ltd., Ivy House Foundry, Hanley, Stoke-on-Trent ST1 3NR, England. P-74575.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product n u m b e r taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

GERMANY—A manufacturer of heavy woven elastic bands of cotton, latex, and rubber for the automobile and furniture industries is interested in a licensing or joint venture arrangement for production of these items in the United States. The bands are used as the "spring tension" basis in automobile, truck, and bus seats and in chairs, couches, and beds. Firm offers six U.S. patents for its products, know-how, training of unskilled labor, production systems, plants for machinery and, if necessary, complete installations. **File 2620**

GERMANY—Small manufacturer of pharmaceuticals seeks licensee in the United States for production of a nontoxic cancerous growth inhibitor developed by the firm's owner. Company specializes in hormone, enzyme, and vitamin preparations. Owner is a practicing physician who is also engaged in cancer research. **File 2621**

SWITZERLAND—Owner of a patent for a novel tennis robot machine is offering a license for manufacture of this machine in the United States. Already introduced with success in Switzerland and other European countries, the unit is an automatic, programmable tennis ball throwing device for training tennis players. It is rugged, light in weight, and mobile, and can throw 15 to 30 balls per minute. **File 2622**

Central Mexico State Welcomes Investment

The Mexican State of Zacatecas has prepared in English a prospectus directed toward potential non-Mexican investors, outlining the advantages of investing in that State. The brochure is entitled "To All Prospective Investors: The Broad Possibilities for the Growth that the State of Zacatecas Offers Your Industry Are Well Worth Your Careful Consideration."

Some of the advantages of investing in Zacatecas, according to the Governor, are: favorable geographical location; availability of natural, human, and technical resources and services; extensive infrastructure; academic institutions; good climate attractive to tourists; financing for pre-investment studies; effective laws to promote growth; and a firm support of state government and business community.

In addition to the geographical advantages mentioned, the report discusses the promotional services available to potential investors (for example, preparation of preliminary and final industrial investment projects; securing of special aid from the Federal Government of Mexico in areas of tax incentive, financing, subsidies; and permanent advisory services for solving problems). The prospectus also includes technical data on communications, land availability, and a list of possible investment opportunities.

The following industries have been determined as feasible for development: agricultural, building, food, miscellaneous, mining, and services (tourism and handicrafts). For a copy of the brochure, write Jose Alfredo Jimenez Torres, Director, Office of Economic and Social Development of the State of Zacatecas, Berlin 18, Desp. 104, Mexico, D.F., Mexico. Telephone, 566-4463.

Foreign Trade Inquiries

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Building construction

• **15100, 16200 — ECUADOR** — Corporacion Estatal Petrolera Ecuatoriana (CEPE) has published a call for bids for construction, assembling and installation of LGP distribution centers in terminals of El Salitral in Guayaquil and El Beaterio in Quito. Bid documents available at the Secretaria General de la Corporacion, Juan Leon Mera y Orellana, Quito, Ecuador, for U.S. $120. Bid deadline is Sept. 25. Bids must be delivered in person to the Secretariat General of CEPE.

• **15100, 16100, 16200—INDONESIA** — The Indonesian Government's Department of Agriculture has issued a notice for general contractors to prequalify to bid on projects involving: a) construction of houses, dormitories, school buildings, farm structures, and undertaking related site developments concerning electricity, water, drainage, roads, etc., and b) renovation of existing buildings. The projects will be funded by the Indonesian Government and an International Development Association credit under Agreement No. 288-IND. Eligible bidders are those qualified general contractors from member countries of the World Bank and IDA, including Indonesia and Switzerland. Currency of payment is the Indonesian rupiah. A reasonable refundable deposit will be charged for each set of bid documents and drawings. In submitting proposal, each bidder must also submit a bid deposit of 2% of the bid.

Prequalification applications for the projects will be accepted no later than Oct. 5. Applications should be sent to: Project Implementation Unit, Badang Pembinaan Pendiken Dan Latihan Pertanian, Departmen Pertanian, Jalan Ragunan 15, Pasar Minggu, Jakarta, Indonesia. Requests for additional information should be sent to same address. Copies of a communication from the American Embassy in Jakarta which provides the location of the projects and estimated gross building areas at each site are available from Construction & Bldg. Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230. ★ 202-967-3602, and the U.S. Dept. of Commerce District Office, 11444 Federal Bldg., 450 Golden Gate Ave., P.O. Box 36013, San Francisco, Calif. 94102 (telephone: 415-556-5864).

• **15100—PARAGUAY** — Call for prequalification of bidders for construction of educational buildings financed by the Government of Paraguay with the financial assistance of the International Development Association (IDA), in accord with Loan Agreement Number 347, PA Number 407/73. Participation is open to Paraguayan contractors and contractors of member countries of the World Bank and Switzerland. Project includes construction of four new school buildings and expansion of two existing facilities in Asuncion; construction of four other new schools in the cities of Caacupe, Coronel Bogado, Caaguazu and San Ignacio. Total area comprised is 34,648 sq. meters. Construction will be of the traditional Paraguayan style: concrete foundations, brick walls, tile roofs and wooden structure, and calcareous tile floors. Estimated cost is $4,350,000. Solicitation of bids will be held between November 1974 and March 1976. Three bids will be called, each covering three to four school buildings.

These bids must be made on the basis of price per unit. Foreign contractors will be required to designate Paraguay representatives which must comply with the same Paraguayan legal requirements as national contractors. These representatives shall be directly responsible for the resultant contractual obligations. Only prequalified contractors may participate in bids. Prequalification deadline is Sept. 20. Agency to contact is: Oficina de Proyecto para el Desarrollo de la Ensenanza Media, Ministerio de Educacion y Culto, Calle Piribsyuy 270, Segundo Piso, Asuncion, Paraguay.

Heavy construction, except highway and street construction

• **16200—TURKEY**—Bids are invited for construction of a drydock (300x70x11 meters), quays, crane ways, and working area around the drydock, in accordance with conditions set forth in the tender documents, for the Pendik Shipyard now under construction at Kaynarca, Pendik, near Istanbul. Bidders have to submit a provisional bidder's guarantee of 6,750 000 Turkish liras. Foreign firms have to submit a letter of guarantee issued by a bank in Turkey upon the counter guarantee of a bank in bidder's country. Tenders are to be submitted on

a turnkey basis, with fixed price, and prepared in accordance with the preliminary technical project carried out by the bidder and based on measurements, estimated cost scales, unit price scales, work program, and duration of works. Special association and cooperation between foreign and local firms are accepted. If bidder is a foreign firm, it must have constructed and successfully put into operation a drydock of near dimensions. If bidder is a local firm, it has to submit a Group Contractor's book of at least 150,000 Turkish liras and must cooperate with foreign engineering and consulting firms who have made and carried a similar drydock project. Tender documents (in Turkish) may be purchased for 500 Turkish liras from: Denizcilik Bankasi T.A.O., Insaat Isleri Mudurlugu, Salipazari, Orta Blok Kat 4, Istanabul, Turkey. Tenders must be submitted by Oct. 3.

Textile mill products

• **22000—NEW ZEALAND**—Hospital Board of New Zealand requests various supplies including 49,600 meters of calico, 58,200 meters of flannelette, 117,190 meters of sheeting, 40,450 meters of toweling, 297 reels (1,000 meters each) of cotton tape, and 96,210 towels. Bid documents and specifications available from Supply Officer, Auckland Hospital Board, P.O. Box 5546, Auckland 1, New Zealand (Tender No. S 4224—Textiles). Bids must be submitted before Nov. 1.

Newspapers: publishing, publishing & printing

• **2711, 2721, 2741—BELGIUM**—Tender for supply of newspapers, annual reference books and periodicals on subscription basis for the Military Library of Supreme Headquarters Allied Powers Europe (SHAPE). Original contract specifies one-year from Jan. 1 to Dec. 31, 1975, with possibility of extension for 3 years. Tender document lists 50 newspapers from various countries of the world, 35 periodicals from 9 countries and reference directories from 6 countries and United Nations. Copies of tender announcement and specifications are available on short-term loan basis to firms located in United States from Printing and Publishing Program, Room 2110, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-4115. Bid deadline Sept. 20.

Agricultural chemicals

28700 — LIBYAN ARAB REPUBLIC — Fertilizers, as follows: 50,000 metric tons of B/N diammonium phosphate (18-47-0 or 18-46-0); 12,000 MT of G/N compound fertilizer (12-24-12); 25,000 MT of C/N ammonium sulfate (21% N); 5,000 MT of B/N superphosphate (18% to 20% P_2O_5); 15,000 MT of G/N superphosphate (18% to 20% P_2O_5); 25,000 FT of superphosphate (19% to 30% P_2O_5); and 4,000 LMT of potassium sulfate (either 48% to 50% K_2O or 50% to 52% K_2O). Packing must be in new 50-kilogram polypropylene sacks lined with polyethylene bags. c.i.f. and c. and f. price quotations in U.S. dollars should be submitted as soon as possible to the General Company for Farm Equipment and Agricultural Necessities, P.O. Box 324, Tripoli, Libya. Tender number not stated. Other terms and conditions include: no commission or intermediation by any agent; right reserved to accept whole or part of any offer; samples should accompany offer; fixed time of delivery requested. Further information can be obtained from the company.

Plastic products

30793XX—30796XX—3079091 — SWITZERLAND—Melamine, polyester or other plastic camping table tops, annual requirements 30,000 units, 825 mm x 623 mm x 3.2 mm.

3949598—9950020—22517XX — Camping & hiking goods, outdoor furniture. Direct sale & representation. Firm is reputable mfr./dist. camping tables, sporting goods. Estab. 1946. Sales territory Switzerland and neighboring countries, Central Europe. Bank ref. Swiss Bank Corp., 1260 Nyon, Switzerland. Reply to Alexandre Bryner, Sales Mgr., Tuborex, Chemin de la Chavanne, 1196 Gland. Cable TUBOREX GLAND; tel. 022/64 10 21.

Abrasive, asbestos, nonmetallic mineral products

329613X—AUSTRIA—Mineral wool insulating bldg. blankets & fiber felts. Inquirer, trading firm estab. 1965 & employing 11 salesmen, interested in mineral wool insulating blankets & fiber felts, which can be fixed with nail & have similar properties as glasswool felts. Reply to—Rainer Westermayer, Owner, Weka Handelsgesellschaft M.B.H., Getreidegasse 21, A-5020 Salzburg. Tel. 06222/42686. Dir. sales & agency.

Steel mill products

• **33100 — INDIA** — 1,2,95 Kg, 730 metre seamless steel pipe; 20,760 Kg, 3,85'0 metre seamless steel tube. Tender No. COSP/FP/9186/C2; bid deadline Oct. 4. Senior Stores & Purchase Officer, Fertilizer Plant, Rourkela Steel Plant, Rourkela 769007, India. Tender documents available from Iron and Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2438.

• **33100—INDIA** — 25 tons cast iron futed ingot moulds, Nos. 20, 30 and 50. Tender No. PUR/C/B3/90889; bid deadline Nov. 11. Bokaro Steel Ltd., Bokaro Steel City, District Dhanbad, Bihar, India. Tender documents available from Iron and Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2438.

33100 — COLOMBIA — 4,080 MT standard length rails and 9,300 MT hard rail or similar quality. Rails may be new or used. Purchase financed by World Bank. Tender No. BIRF no. 11; bid deadline Oct. 1. Ferrocarriles Nacionales de Colombia, Estacion de la Sabana, Calle 14 No. 18-24, Oficina 307, Bogota, Colombia. Specifications available at above address at $200 per copy. Spanish preferred.

Rolling, drawing, extruding of nonferrous metals

• **33500—ETHIOPIA**—40,000 kgs. hard drawn copper wire of high conductivity complying with latest B.S. requirements. Tender No. 16/74; bid deadline Nov. 15. Imperial Board of Telecommunications of Ethiopia, P.O. Box 1046, Addis Ababa. Specifications available from Copper, Lead, and Zinc Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2438.

Engines, turbines

• **35100—INDIA**—Four diesel driven 15KW generator sets and accessories, one gas engine driven 400 amps arc welder, and one gas welding set. Tender IRR/IDA/2(T) 74-75, bid deadline Oct. 29. Director General Irrigation Department, 9/21 Strand Rd., Rangoon. Tender copies available from the American Embassy, Rangoon for $5.35 per set.

Construction, mining, materials handling machinery, equipment

• **35300—MEXICO** — Eleven hoists, tackles, and service gantries for thermo electric plants No. 1 and 2 at Tula, Mexico, correspondence in English acceptable, but Spanish preferred. Bid #CI-73/74 with deadline of Jan. 5. Specifications available from: Comision Federal de Electricidad, Gerencia General de Abastecimientos, Rodano 14, Mexico 5, D.F.

• **35300—TURKEY**—Conveying and crushing equipment required for $1 billion Elbistan-Fasin thermal power plant project. This includes development of lignite mining deposits as well as power plant. Bid deadline Oct. 11. Specifications in English available for $75 from: Tek Santrallar Dairesi Baskanligi, Necatibey Caddesi, Maro Han—5th Floor, Yenisehir—Ankara, Turkey.

Special industry machinery

35500—BELGIUM—A governmental agency helping small and medium size enterprises is looking for a U.S. made machine which would allow parts to be interchangeably used in different operations on the same machine. This specific machine is currently being manufactured by Dreher Automatic Systems, 7241 Rensfrizhausen UB. Horb/N., West Germany. Interested firms should contact the American Embassy in Brussels directly.

35500—CEYLON — The Ceylon Ceramics Corp., Piliyandala, Sri Lanka, has called for tenders for a refractories plant to be sited at a place called Hanwella, approximately 25 miles away from Colombo Harbour, where there is also a newly constructed brick & tile factory with new plant and machinery. Anyone interested in tendering for supply of this plant is welcome to inspect the site and submit proposals to adapt the brick & tile factory for manufacture of refractories utilizing as much as possible the existing plant, machinery and building. Bid deadline is Sept. 30. Copies of tender notice are available from Ceylon Ceramics Corp., Piliyandala, Sri Lanka, on payment of Rs. 100 per copy. One copy is available for inspection at the Embassy of Sri Lanka (Ceylon), 2148 Wyoming Ave., NW., Washington, D.C. 20008.

35500—LEBANON—Lebanon Steel Mill Co. S.A.L. investigating construction new facility to produce plastic sanitary ware, e.g. wash basins, bathtubs, household water storage tanks. Wishes receive proposals from U.S. firms for supply of required equipment. Interested U.S. firms should contact Adel Mansour, Secretary, P.O. Box 555, Tripoli, Lebanon, Telex LSMCO 20664 Le.

Office, computing, accounting machines

• **35700—INDIA**—The Asst. Director General (Imports) Posts and Telegraphs Dte. Parliament St., New Delhi 110001, has issued Tender No. 12-111/74-MMD for memory systems and electronic exchange peripherals. Bid deadline Dec. 9. Complete specifications can be purchased for $2.74 (not refundable). Send demand draft, in favor of Section Officer (C&A), Director General Posts and Telegraphs, New Delhi.

Electrical industrial apparatus

• **36200—GREECE** — Supply of two emergency power plants: one plant to consist of three 1800 KVA diesel generator sets and the other of three 1200 KVA diesel generator sets. Tender No. 7082, bid deadline Oct. 10. Hellenic Telecommunications Organization (OTE) Purchasing Department, 6 Klessovis St., Athens. Tender copies available from above address.

• **36200—INDIA**—One diesel driven generator set comprising 2-3 units to produce 2500 KW at 11 KV Tender No. CSP/N/177/ZS/74, bid deadline Sept. 23. Controller of Stores and Purchase, Hindustan Zinc Ltd., 6 New Fatehpura, Udaipur, Rajasthan. Tender copies available from above address.

• **36200—INDIA**—One diesel driven generator set comprising 2-3 units to produce 2500 KW at 6.6 KV. Tender No. CSP/N/178/VZS/74, bid deadline Sept. 23. Controller of Stores and Purchase, Hindustan Zinc Ltd., 6 New Fateh-

pura, Udaipur, Rajasthan. Tender copies available from above address.

• **36200—INDIA**—One diesel driven generator set comprising 2-3 units to produce 2,200 KV at 11 KV. Tender No. CSP/N/179/2M/74, bid deadline Sept. 23. Controller of Stores and Purchase, Hindustan Zinc Ltd., 6 New Fatehpura, Udaipur, Rajasthan. Tender copies available from above address.

• **36200—THAILAND** — Thirty-three 30-42 BHP diesel generator sets. Tender No. PEA-RED-9/1974, bid deadline Sept. 30. Purchasing Division, Provincial Electricity Authority (PEA), NGAM Wong Waan Rd., Bangkhen, Bangkok. Tender documents available from above address for $35 per set.

Communications equipment

• **36600—BOLIVIA** — Empresa Nacional De Telecomunicaciones Edificio Petrolero 7Mo. Piso. Casilla 4450 La Paz, has issued a tender for radio equipment, materials, tools and spare parts for high frequency radio system as stated in specifications. Bid deadline Oct. 10. Complete specifications can be purchased for $B.1.200 or US$60 from Empresa De Telecomunicaciones, Casilla 4450, La Paz. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

• **36600—EL SALVADOR**—Antel, Licitacion Publica No. 10/74—Administracion Nacional De Telecomunicaciones, Edificio Administrativo, Centro De Gobierno, San Salvador, has issued Tender No. Licitacion Publica/Concurso No. 10/74 for voice frequency carrier telegraph (VFT) equipment, estimated cost $100,000. Bid deadline Oct. 10. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

• **36600—EL SALVADOR**—Antel, Licitacion Publica No. 11/74—Administracion Nacional De Telecomunicaciones, Edificio Administrativo, Centro De Gobierno, San Salvador, has issued Tender No. Licitacion Publica/Concurso No. 11/74 for technical broadcasting verification (monitoring) equipment. Estimated cost $100,000. Bid deadline Oct. 21. This equipment will be purchased with Antel's funds. Bidding regulations and technical tender specifications, in Spanish, available to interested bidders for $40 (equal to 100 colones) at: Departamento De Suministros, Administracion Nacional De Telecomunicaciones (Antel), Edificio Administrativo, Centro De Gobierno, San Salvador. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

• **36610—ETHIOPIA** — Imperial Board of Telecommunications of Ethiopia, P.O. Box 1047, Addis Ababa, has issued Tender No. 15/74 for automatic telephone apparatus. A list of spare parts or materials which bidder considers should be held as maintenance spares for three years of service of equipment should be included. Prices must be c.i.f. Ethiopian Port of Assab (with ocean shipment restricted to Ethiopian shipping line where possible) and insurance must cover all risks up to IBTE Warehouse, Addis Ababa. A bid bond for a sum not less than US$2500 in form of cash, certified check or guarantee issued in IBTE's favor by a first class bank or insurance company residing and carrying on business in Ethiopia is prerequisite. Bid deadline Nov. 8. Copies of tender documents available from issuing authority for US$4 plus US$2.50 mailing charges.

Electrical machinery, equipment, supplies

• **36900, 38100, 38400 — BOLIVIA** — Caja Nacional De Seguridad Social, Cajon Postal No. 697, La Paz, has issued a tender for financing, provision and installation of medical, surgical, dental and laboratory equipment and apparatus for medical units of Caja Nacional De Seguridad Social. Bid includes four chapters as follows: 1. general equipment (elevators, telephones, etc.), II. kitchen and laundry equipment, III. and IV. medical and surgical equipment and apparatus. Prices f.o.b. and c.i.f., La Paz. Financing must include conditions of credit and amounts of repayments (principal and interest). Project estimated to cost $4,500,000. Complete specifications can be purchased for US$50 from Caja Nacional De Seguridad Social, Cajon Postal 697, La Paz. Bid deadline Dec. 12. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

• **36900, 38100, 38400 — BOLIVIA** — Caja Nacional De Seguridad Social, Cajon Postal No. 697, La Paz, has issued a tender for financing, provision and installation of medical surgical and laboratory equipment and apparatus for the Hospital Obrero of Potosi. Prices f.o.b. and c.i.f. La Paz. Financing must include conditions of credit and amounts of repayments (principal and interest). Complete specifications can be purchased for US$25 from Caja Nacional De Seguridad Social, Cajon Postal 697, La Paz. Bid deadline Oct. 14. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

Engineering, laboratory, scientific, research instruments

• **38110—PAKISTAN** — N.E.D. Government Engineering College, New Campus, University Road, Karachi, has issued Tender No. 535/02/TOOO2 for General Science and Civil Engineering Laboratory and Workshop Equipment. Approximate value $475,300. Bid deadline Oct. 23. Tender documents may be purchased for $20 per set from Zaheeruddin and Company, 5-A, Sindhi Muslim Housing Society, Main Road, Karachi-3. Cable address "ARCHITECT," Karachi, telephone 511021 and 511022. Extra charges for despatch of tender documents to United States by second class airmail $18, and by air parcel post $8. American suppliers interested in bidding are advised to obtain copies of tender documents at above address immediately.

Instruments for measurement, analysis and control

• **38200—INDIA**—The Asst. Director General (Imports), Room No. 514, Posts & Telegraphs Dte., Parliament St., New Delhi 110001, has issued Tender No. 12-106/74-MMD for Testing Instruments for Carrier Systems. Bid deadline Nov. 18. Complete specifications can be purchased for $2.74 (not refundable). Please send demand draft in favor of Section Officer (C&A), Office of the Director General, Posts and Telegraphs, New Delhi.

• **38200—INDIA**—Asst. Director General (Imports), Room No. 514, P&T Dte., Parliament St., New Delhi 110001, has issued Tender No. 12-105/74/MMD for Testing Instruments for MW, VHF & Satellite. Bid deadline Nov. 11. Complete specifications can be purchased for $2.74 (not refundable). Please send demand draft, in favor of Section Officer (C&A), Office of the Director General, Posts and Telegraphs, New Delhi.

• **38200—INDIA**—The Asst. Director General (Imports) Posts and Telegraphs Dte., Parliament St., New Delhi 110001, has issued Tender No. 12-108/74-MMD for Testing Instruments for Data Transmission Systems. Bid deadline Nov. 26. Complete specifications can be purchased for $2.74 (not refundable). Please send demand draft, in favor of Section Officer (C&A), Office of the Director General, Posts and Telegraphs, New Delhi.

• **38200—INDIA**—The Asst. Director General (Imports), Room No. 514, Posts and Telegraphs Dte., Parliament St., New Delhi 110001, has issued Tender No. 12-107/74-MMD for Testing Instruments for Digital Systems. Bid deadline Nov. 22. Complete specifications can be purchased for $2.74 (not refundable). Please send demand draft, in favor of Section Officer (C&A), Office of the Director General, Posts and Telegraphs, New Delhi.

• **38200—INDIA**—The Asst. Director General, (Imports), Posts and Telegraphs Dte., Parliament St., New Delhi 110001, has issued Tender No. 12-109/74-MMD for Testing Instruments for Bridges and Standard Sections. Bid deadline Dec. 2. Complete specifications can be purchased for $2.74 (not refundable). Please send demand draft, in favor of Section Officer (C&A), Director General Posts and Telegraphs, New Delhi.

• **38250—PAKISTAN** — N.E.D. Government Engineering College, New Campus, University Road. Karachi, has issued Tender No. 535 Pakistan for electrical engineering tools and educational equipment as follows: (A) electrical engineering laboratory, 174 items, (B) general tools, 100 items, (C) educational and demonstration equipment, charts and models, about 100 items. Value approximately $276,600. Bid deadline Oct. 23. Copies of tender documents may be purchased for $20 per set from Zaheeruddin and Company, 5-A, Sindhi Muslim Housing Society, Main Road, Karachi-3. Cable address "ARCHITECT," Karachi, telephone 511021 and 511022. Extra charges for despatch of tender documents to United States by second class airmail $18, and by air parcel post $8.

Optical instruments, lenses

• **38350 — INDIA** — Posts and Telegraphs Directorate (MMD Section), Ministry of Communications, Dak Tar Bhawan, Parliament St., New Delhi 110001, has issued Tender No. 12-105/74-MMD for Testing instruments for MW, VHF and Satellite. Bid deadline Nov. 11. Copies of tender announcement and specifications are available for $2.74 per set from the Assistant Director General (Imports), Room No. 514 (above address), by sending crossed demand draft in favor of Accounts Officer (C&A), Office of Director General, Posts and Telegraphs, New Delhi. Interested bidders must obtain bid documents prior to submitting offers.

Surgical, medical, dental instruments

• **38400 — BOLIVIA** — Caja Nacional De Seguridad Social, Cajon Postal No. 697, La Paz, has issued a tender for financing, provision and installation of sterilization equipment for the Hospital Obrero in La Paz. Prices f.o.b. and c.i.f. La Paz. Financing must include conditions of credit and amount of repayments. Complete specifications can be purchased for US$5 from Caja Nacional De Seguridad Social, Cajon Postal 697, La Paz. Bid deadline Oct. 14. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Division, MDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, ★ 202-967-2939.

Some Czech Organizations Get Temporary Addresses

A fire in Prague has gutted the office building where the headquarters of Czechoslovakian foreign trade organizations KOVO (precision engineering products), KOOSPOL (agricultural products), MOTOKOV (automotive products), CENTROTEX (textiles), and EXICO (leather goods) were located. It is likely that there will be considerable disruption in activities of these firms, as files and records were destroyed. American firms dealing with any of these trade organizations may experience delays.

The temporary address of four of the trade organizations are: KOOSPOL Foreign Trade Company, Olsanska 1, Prague 3, telephone 278-151, telex 121121; KOVO Foreign Trade Company, Kodanska 46, Prague 10, telephone 715, telex 2241-3; MOTOKOV Foreign Trade Company, Jeruzalemska 12, Prague 1, telephone 30808, ext 221, telex 121964; CENTROTEX Foreign Trade Company, Panska 9, Prague 1, telephone 246941-9 and 248941, telex 012111 and 011298.

American firms requiring assistance in contacting these organizations may contact Commerce's Trade Development Assistance Division, Bureau of East-West Trade (telephone 202-967-5500).

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Synthetic materials

282XXXX—MOROCCO—Yarn, acetate, 150 deniers, unbleached, bright & mat, twisted, tpm 90/100, 42 filaments. Yarn, acetate, 100 deniers, unbleached, bright & mat, twisted, tpm 90/100, 42 filaments. Yarn, nylon, 620 deniers monofilament, 70 deniers, 12 filaments, 140 deniers 24 filaments, 210 deniers 34 filaments, 100 deniers 34 filaments, semi-mat. Yarn, viscose rayon, 159 deniers, 40 filaments, tpm 120, bright, all colors including unbleached. Yarn, viscose rayon, 300 deniers 60 filaments, tpm 120, bright, all colors including unbleached. Yarn, viscose rayon, 450 deniers 150 filaments, tpm 120, bright all colors including bleached. Yarn. viscose rayon, 300 deniers 60 filaments, tpm 14/15, bright, all colors including unbleached for mfr. of upholstery velvet fabrics. Mr. Benbaruch is mfrs. agent specializing in textile products. Seeks excl. agency. Desires c&f quotations. Est. annual sales $3 million. Reply to Mr. Prosper Benbaruch, Prosper Benbaruch, 16 Ave. de l'Ile-de-France, CIL, Casablanca. Tel. 25-66-33.

Special industry machinery

3554051 — PHILIPPINES — Equip. for multiwall kraft bag mfg. plant with following requirements: rated capacity 2,000 bag/hr.; ability to produce machine-sewn type paper bags & pasted type paper bags; tubing machine should be automatic bottomer though manual pasting should also be possible; multi-color printing press attached to tubing machine for simultaneous tubing & printing process. Requests following info. from suppliers for feasibility study purposes: monthly requirement of raw material & utilities; flow diagram; cost of machinery & equip. (f.o.b.) & delivery schedule & terms of payment. WTDR 2/74. Cable Agustin M. Alonzo, V.P., R. F. Alonzo Trading & Engineering Services, Inc., 2135-C Pasong Tamo, Makati, Rizal. Tel. 87-98-62; 88-26-03; cable Tesinc.

Future Construction Abroad

ARGENTINA—The Subsecretariat for Merchant Marine has amended its previous call for prequalification for the **deep water port project** at Punta Medanos by announcing that prequalification offers will be accepted until Dec. 26. Another modification in the plans for this bid contest is the decision to expand the work scope being offered the bidders who are now being asked to prequalify for the "detailed" engineering work for the project as well, not only on the seaward infrastructure but also on the facilities on the landward side; (previous call had indicated an interest by the Government of Argentina only in construction and equipping of the port itself). Financing has not yet been set up although the government has made some tentative approaches to the World Bank. Completion of preliminary design and engineering work is not likely prior to mid-1975 and will probably not take place till the end of third quarter 1975. It is unlikely therefore, that the call for tenders will take place before the end of this year. Interested U.S. suppliers of goods and services should attempt to obtain local partners for the engineering phase of this venture and strive to incorporate a maximum of local content in the equipment they offer. Interested firms should contact Subsecretaria de Marina Mercante, Av. J. A. Roca 734, 2 Piso, Beunos Aires.

COLOMBIA—ISA, Interconexion Electrica SA, a corporation whose main partners are the major power utilities in Colombia, has obtained a $49 million credit from IDB to finance the **civil works of the second stage of the Chivor hydroelectric project.** Prequalification of firms for construction works has already been done by ISA. Total cost for second stage estimated at $100 million, of which at least $51 million will be for acquisition of machinery and equipment. ISA expects to obtain credits directly from suppliers to finance purchase of equipment. The first tenders for acquisition of equipment should come out in early 1975. Equipment and machinery requirements: four vertical shaft impulse type turbines, turbine valves, four 125 MW salient pole synchronous generators, pressure piping, transformers plus a wide range of electric equipment such as circuit breakers, disconnecting switches, lightning arresters, wave traps and potential devices for communications and protection, steel structures, bus bars, insulators, connectors, downleads, control and power cables, conduit and connection boxes for seven days, etc. Interested U.S. firms can contact either Javier Restrepo, Ingeniero Jefe, Departamento de Plantas or German Jaramillo, Subgerente Tecnico, at the following address: Interconexion Electrica S.A. (ISA), Calle 37 No. 8-43, Piso 10, Apartado Aereo 12247, Bogota.

INDIA—Gujarat State Fertilizers Co. Ltd. (GSFC), P.O. Fertilizer Nagar, Baroda, India, invites engineering firms, process licensors and contractors to bid for construction of the **proposed new fertilizer project,** consisting of 1,350 tons per day ammonia and 1,500 tons per day urea plants. Scope of contract includes supply of know-how, basic project engineering, supervision of detailed engineering to be done by Indian engineering firm, supervision of construction and commissioning of plant, and supply of imported equipment and materials needed. Interested firms should communicate with D. C. Gami, Executive Director (Operations), GSFC, furnishing following information: particulars of business and technical background; particulars of partners, if any, to be associated with project; listing of plants built during last six years along with capacities, locations and ownership; brief descriptions of these plants indicating processes adopted and flexibility of processing variable feedstocks; major terms and conditions under which jobs were awarded; period taken for completion and operational performance of erected plants during last three years and consumption of raw materials and utilities for each product. Foreign exchange will be partly from foreign government credits and partly from country's free foreign exchange. Bid deadline Nov. 30. Bid specifications available from GSFC for Rs. 250. A copy is available for review only at the U.S. Department of Commerce, Windy Haimes, Major Export Projects Div., Rm. 3414, Washington, D.C. 20230. Tel.: 202-967-2732.

PANAMA—Instituto de Recursos Hidraulicos y Electrificacion (IRHE) has issued Notice of Invitation to Bid No. 423-74 for **supply, delivery, supervision of erection and tests of communication equipment for Communication and Load Dispatch System Project.** Bid deadline Oct. 21, at the Purchasing Department of the Instituto de Recursos Hidraulicos y Electrificacion (IRHE), Poli Building, Justo Arosemena Ave. & 27 East St., Panama City. IRHE has received a loan from the International Bank for Reconstruction and Development in various currencies equivalent to $30 million towards the foreign cost. All proposals must be made according to laws of the Republic of Panama and guidelines for procurements for World Bank loans, as detailed in bid documents. Bid documents as well as all maps, plans, specifications, and proposal forms may be inspected at IRHE's offices in Panama; at Chas. T. Main International, Inc., Prudential Center, Boston, Mass.; at Stone & Webster Overseas Consultants, Inc., 90 Broad St., N.Y. 10004; or at Panamanian Embassies. The complete set of documents may only be obtained directly from the office of IRHE in Panama or from P.O. Box 5285, Panama City, at a non-refundable payment of $50 per set.

HONG KONG—The Hong Kong Government has issued an open invitation to interested firms to submit preliminary proposals for construction of a **bridge linking the northeastern part of Lantau Island with the New Territories.** However, the government emphasizes that there is no commitment on its part to accept one of the proposals and that no decision has been taken on whether or not to build a bridge. The government invites firms who may be interested in undertaking construction to indicate broadly: a timetable envisaged for construction; whether any restrictions would be placed on its alignment, design or size; the time needed to prepare firm proposals for construction and how the project should be financed. A summary of an interim report on the Lantau fixed crossing is available on request from H. S. Grewal, Deputy Secretary for Environment, Environmental Branch, Colonial Secretariate, Central Government Offices, Central Wing, Hong Kong. Preliminary proposals should be sent to the government by Dec. 31.

IVORY COAST—The Ivorian Ministry of Tourism, Abidjan, envisions continuing need for hotel space, particularly in or near Abidjan, and is promoting the building of a **200-room hotel on the Plateau and a 300-bed hotel near Grand Bassam.** The Tourism Committee has noted the need for trained manpower in administration of hotels. A hotel and restaurant manager training center is now planned for the new Riviera complex. According to plans, student training will commence in October 1975. Projects must consider preservation of environment and plant and animal life, and tourist health and safety, and complement existing facilities.

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